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THE JOURNAL

OF THE

Jamaica Agricultural Society.

The more people do the more they can do; he who does nothing renders himself incapable of doing anything; while we are executing one work we are preparing ourselves for undertaking another.

Vol. XXXIX. JANUARY, 1935. No. 1.

BOARD OF MANAGEMENT.

The monthly meeting of the Board of Management of the Jamaica Agricultural Society was held at the office of the Society, 11 North Parade, Kingston, on Friday, the seventh December, 1934, at 11.30 a.m. There were present: His Excellency Sir Edward Denham, K.C.M.G., K.B.E., President, Hon. T. J. Cawley, Rev. W. J. Thompson, and Hon. G. Seymour Seymour, Vice-Presidents, Hon. A. C. Barnes, Director of Agriculture, (*ex officio*), Messrs Sidney Barton, H. E. Lewis, T. P. V. McDaniel, U. Theo. McKay, D. D. Phillips, W. Harper Watson, W. H. W. Westmorland, T. R. Williams, and Major G. B. Pease; Mr. P. St. L. Bacquie, Supervisor of Instructors and the Secretary, Glaister Baxter.

The First Vice-President, the Hon. T. J. Cawley, presented the members of the Board, the Secretary and Supervisor to the Governor.

Apologies for Absence.—

A letter of apology for absence was tendered on behalf of Mr. S. M. Walker.

Welcome to His Excellency the President.—

The First Vice-President, the Hon. T. J. Cawley, on behalf of the Board, tendered a hearty welcome to the President. This was seconded by Mr. McKay.

His Excellency then addressed the Board and thanked them for the welcome.

Confirmation of Minutes of the previous Meeting.—

Copy of the minutes having been sent to each member of the Board, they were taken as read.

Two amendments were made and the minutes were confirmed.

Matters arising out of the previous Minutes.—

(a) *Statement by Secretary* was made as follows:—

To the Board of Management:

Gentlemen:

With reference to the Two Guineas authorised as contribution toward the Bellas Gate Fair, it is proposed to allocate it as follows:—

Four-sevenths of the amount for prizes for animals.

Two-sevenths of the amount for prizes for handicrafts.

One-seventh of the amount for prizes for vegetables.

The first prize will be allocated as four-sevenths, the second prize two-sevenths and

With reference to the Gilnock Show, I have the personal undertaking of the Secretary as a guarantee for Instructors' expenses consequent on their attendance.

All other correspondence consequent on the deliberations of the Board at their last meeting has been carried through.

(Sgd.) GLAISTER BAXTER,
Secretary.

(b) *Letter from His Excellency the Governor acknowledging resolution* was read as follows:—

King's House,
12th November, 1934.

Dear Sir,

I am directed by His Excellency to acknowledge with thanks the receipt of your letter of November the 8th, and to say that the Governor will be pleased to attend the next meeting of the Jamaica Agricultural Society on Friday December the 7th.

I am also directed to acknowledge with thanks the copy of the resolution which you were kind enough to enclose in your letter.

Yours truly,
(Sgd.) JERMYN RUSHBROOKE,
Commander, R.N.
Private Secretary.

(c) *Mr. Cover's question re treatment of Panama Disease in St. Ann.*—On the motion of Mr. Cawley, seconded by Mr. McKay, it was decided that as Mr. Cover was absent this matter be deferred.

(d) *Estimates.*—The Secretary stated that the Board as a Committee had sat that morning to consider the question of the Estimates. Time not having permitted its completion, the matter was referred to the Board.

Mr. Cawley said that as the Committee had not finished its deliberations he would move that the matter be deferred to the afternoon session. He added that it was very pleasing that His Excellency was there so that he could get some grasp of the affairs of the Society. He pointed out to the President that the amount that it was proposed to ask Government for would include some new items—one being an increase of Agricultural Headmen. Three of these men had been tried out during the last year, and the result of their work had been so satisfactory that it was now proposed to increase the number. There was also the item of an Assistant Secretary. The services of the present Secretary were in demand outside of the office and it was necessary to have someone to carry on the work of the office in the absence of the Secretary. During the administration of Sir Ransford Slater it was hoped that the grant from Government would have been increased, but owing to a series of calamities that overtook the Island this had not been possible. He did not mean to take advantage of His Excellency's presence at the meeting to press the matter but he had to say that the efforts of the Society had been curtailed and handicapped through lack of funds. They had a very big and important programme to accomplish and they trusted that as things were returning to normal His Excellency would be able to grant the Society a slightly increased sum.

The President said he should have been surprised if they had not taken advantage of his presence there to put such a matter before him. He asked if the figures given included any amount for the conversion of the newly acquired building into a store.

Mr. Cawley stated that they were going to form a small Committee to go into that matter to make representations to the Public Works Department to make plans and estimates for converting the newly acquired premises to meet the requirements of the Society. The Society also had plans under consideration for the dehydrating of corn and the storing of grains and seed potatoes.

but he would advise that strict economies be made to effect savings on the figures mentioned so that an amount could be allocated for the equipping of the new premises for storage and so on.

Further discussion on the estimates was deferred to the afternoon session.

(e) *Report from Committee re Messrs. I. C. Maynier's proposal re storage of corn.*—A report from the Committee appointed to interview a representative of Messrs. I. C. Maynier and Company to discuss their propsal to take care of the dehydrating and handling of native corn, was presented to the Board.

After some discussion the report was received and the matter referred back to the Committee for further deliberations and recommendations.

His Excellency expressed the hope that he would soon be able to attend another meeting of the Society and left.

The Hon. T. J. Cawley took the chair.

(f) *Produce Licenses—Letter from Inspector General.*—The Secretary stated that this matter was deferred from the last meeting. Each member had been supplied with a copy of the letter which was also published in the minutes of the last meeting.

Mr. Williams moved that the Board express approval of the suggestions and recommendations of the Inspector General.

Mr. Watson said he would second the motion for discussion.

After further discussion, which disclosed that the Board was not in entire agreement with the Inspector General's proposals, Mr. Williams withdrew his motion, and moved that the matter be recommitted to the Committee for their further consideration. He also suggested that the whole trouble might be overcome, not by putting addtional licenses on trucks, but by requiring that a book of records be carried on each truck conveying produce.

Mr. McDaniel seconded Mr. Williams' motion, which was carried.

Mr. Williams was added to the personnel of the Committee.

(g) *Tree Planting and Barking of Trees.*—Letter from the C.S.O. deferred from last meeting, enquiring whether Law 17 of 1929, the Sale of the Bark of Trees (Prevention) Law, 1929, has had any deterrent effect on the barking of trees and whether it was recommended that any other trees should be added to the Schedule of the Law, was presented.

The Secretary was instructed to reply asking the Government to take steps to enforce the law, as it was thought that it was at present not being sufficiently observed.

(h) *Secretary's report on work of Agricultural Headmen.*—The Secretary presented the following report:—

To the Board of Management:

As instructed, I beg to report on the work of the Agricultural Headmen.

Headman Rupert Grant assumed duties under Instructor McLaren in the St. Thomas-in-the-East area on July 26th.

Headman W. A. Wright assumed duties under Instructor Darby in the South Manchester area on July 9th.

Headman Gladstone Harris assumed duties under Instructor Shirley in the Clarendon area on July 7th.

All these Agricultural Headmen went along with the Agricultural Instructors under whose charge they were put for one month, undergoing training for the duties that they were expected to perform.

The St. Thomas Headman was used between the vegetable trials being carried through at Llandewey and at the same time devoted some attention to the Bombay mango work at the Bombay mango propagation plot at the same place. This plot has afforded him a lot of occupation and he has been engaged in budding, staking, planting of grafted plants and filling in the remaining vacant spaces in the plot with ordinary mango seedlings. The plot is approximately 6 acres in area. In addition to this work he has carried

On investigating the situation there I find that the chopping back programme of Bombay trees is sufficiently advanced, as if we do more than will be finished by the end of this month the budwood produced on the propagating plot will be insuffiicent for budding the new growth. This is due to the fact that it takes two to three years to produce budwood in quantity, *whilst 12 to 18 months will produce new growths of wood suitable* for budding.

Due to the fact that Instructor McLaren will from January next be undertaking intensive work in his No. 4 Zone—Bath-Plantain Garden area— to which he is entirely strange, this area having previously been under Mr. Wates, I consider it inadvisable to continue the Headman in that area. The vote is, therefore, available for an appointment in another area.

The Clarendon Headman was stationed in the Richmond Park area above Mocho, and operated in the districts of Richmond Park, Drummond Castle, Stewarton and Boyne. This area possesses thousands of citrus trees of non-standard varieties with a large percentage of Seville orange seedlings available for top working.

In nearly every holding in these districts I saw evidence of intensive budding work that has been done, and the percentage of successful buds has been very high. I estimate around 90%.

A small amount of Bombay mango budding has also been done and a little new citrus planting.

A feature of his work has been assisting in the starting of several vegetable plots

I consider he has done good work.

The South Manchester Headman, after his month's training, operated in the Mt. Nelson, New Hall, Barossa, Sweeden, George's Valley and Richmond Districts. His work has been specially citrus pruning. On each holding, with few exceptions, along the roads in this area he has pruned two and in some cases three citrus trees. In all he has pruned 225 trees, put on 880 buds with a percentage of successes of over 90% and has done some little work in assisting to line and plant new citrus. He has also done a little coffee pruning work. As the coffee pruning season is at hand and will last for another two or three months, it is proposed to let him go through the same area on coffee pruning work.

Approximately it might be estimated that the Headmen working on the lines outlined, that is on nearly every holding along the roads, can do about 3 square miles territory per annum.

I am sorry to report that the examples set in pruning a few trees on each holding has not produced the result of the owners going ahead, with the exception of about 5% of the persons so surveyed. Many of them expressed to me their good intentions in this direction and they will have to be watched to see if these intentions materialise. An enormous number of citrus trees of non-standard varieties exist both in Upper Clarendon and South Manchester, *and if our example produced the results desired on the part of the* owners very rapid progress could be made.

One aspect of the situation which the Board must bear in mind is that intensive work of this kind would require a lifetime for one Headman to go through one agricultural district. The work without doubt is very valuable and relatively the cheapest method we can adopt for furthering it. It would appear to me that eventually our field organisation will be built on a Staff with no more Instructors than we have at present but a very large increase in the Agricultural Headman Staff if progress is to be speeded up.

(Sgd.) GLAISTER BAXTER.
Secretary.

On the motion of Mr. Thompson seconded by Mr. Lewis, the report was adopted.

The meeting then adjourned for luncheon.

On the resumption there were present:—Hon. T. J. Cawley in the chair, the Director of Agriculture, Messrs. McDaniel and McKay, Major Pease, the Supervisor of Instructors and the Secretary. Mr. Williams attended shortly after.

(i) *Prevention of Cruelty to Animals—Letter from Inspector General.*— The following letter was read.

1476

No. J. A. S. 6522/34. 21st November, 1934.

"I have the honour to acknowledge the receipt of your letter No. 399, dated 16th November, 1934, and have given instructions that the Police must take rigorous steps to prosecute persons seen brutally flogging animals, and do everything that they can to stamp out this practice.

The letter was noted and the Secretary instructed to thank the Inspector General for his action in the matter.

Statement of Accounts.—

(a) *Statement for October.*—The Secretary stated that this had appeared in the minutes.

(b) *Statement for November* was presented as follows:—

STATEMENT OF ACCOUNT FOR NOVEMBER, 1934.

Receipts		Estimates.	Total.
		£ s. d.	£ s. d.
To Subscriptions		175 0 0	127 7 0
Affiliation and Journal Fees		175 0 0	167 1 6
Advertisements in Journal		200 0 0	61 0 0
Bank Interest and Sundries		10 0 0	9 18 11
Miscellaneous		10 0 0	4 4 0
Bee Industry Sales		30 0 0	24 4 5
Sales Dept. Profits for 1934-35		400 0 0	..
Government Grant		9,500 0 0	6,333 6 8
Grant for Beekeeping Industry		500 0 0	333 6 8
Appropriation from Sales Department Surplus		516 15 0	..
		£11,516 0 0	£7,060 9 2
Balance from 31st March, 1934			1,877 4 8
Nethersole Presentation Fund			0 2 0
Refunds of Advances			420 5 6
Hire of Show Equipment			9 14 0
Shows A/c Deposits			23 2 6
Seeds Trading Account			2,568 17 8
			£11,959 15 0
Less Expenditure per contra			11,416 5 5
Balance			£543 9 7
Cash in hand		10 4 9	
Cash at Barclay's Bank Deposit A/c	£500 0 0		
Less Overdrawn on Current A/c	315 15 2	£186 4 10	
Cash at Royal Bank of Canada Current A/c		172 0 0	
Cash at Royal Bank of Canada Deposit A/c		175 0 0	543 9 7

Expenditure.	Estimates.	Total.
	£ s. d.	£ s. d.
By Personal Emoluments:		
Secretary and Office Staff	2,014 5 0	1,395 12 1
Instructors and Supervisor	7,482 10 0	5,160 9 6
Instructors' Course at Hope	125 0 0	84 2 9
Instructors' Contingencies	100 0 0	84 19 9
Secretary's, Office and Special Travelling	100 0 0	110 9 3
Printing and Stationery	100 0 0	92 8 6
Printing and Issuing Journals and Half-Yearly Reports	750 0 0	511 6 0
Rent and Rates	58 0 0	40 4 10
Rent of Telephones	27 0 0	17 14 8
Postage and Telegrams	10 0 0	7 2 6
Office Furniture: Repairs	15 0 0	9 7 4
Incidentals	50 0 0	36 10 11
Auditor's Fees	25 0 0	25 0 0
Library Books	10 0 0	10 1 2
Experiments and Livestock Subsidies	100 0 0	45 13 8
Show Equipment: Maintenance and Repairs	10 0 0	7 12 0
	£10,976 15 0	7,638 14 10
Beekeeping Industry	500 0 0	380 12 7
New Office Equipment	40 0 0	61 17 2
	£11,516 15 0	

	Estimates £ s. d.	Total £ s. d.
Shows Account Printing, etc.	..	21 0 0
Gratuity: Mrs. Barclay		38 0 0
Advances to Instructors	..	435 0 0
Nethersole Presentation Fund		9 0 0
Holdings Improvement Competitions	..	194 1 8
Local Competitions		7 11 7
Plant Disease Control		26 10 0
Seeds Trading Account		2,497 16 0
Refund to Govt. Storm Relief, etc.		106 0 10
		£11,416 5 5

(Sgd.) GLAISTER BAXTER,
Secretary and Treasurer.

(Sgd.) DONALD McDONALD,
Accountant.

Resolutions.—

(a) *Mr. McKay re Citrus Industry.*—Mr. McKay moved the following resolution:—

"That steps be taken to make arrangements for Mr. McDaniel to go to first class citrus areas to give suitable lectures and demonstrations to the Agricultural Instructors on the top-working of citrus."

He spoke on the resolution which was seconded by Major Pease.

A discussion followed in which the Chairman, Major Pease, the Director of Agriculture and Mr. McDaniel took part.

Mr. McKay then spoke closing the discussion and the resolution was carried.

It was decided that the Society should be responsible for the travelling expenses necessitated by the visits made by Mr. McDaniel and that whenever possible the visits should be made in conjunction with visits to the districts by the Secretary.

The Director of Agriculture asked to be excused and left the meeting.

Estimates.—It was decided that the matter of the Estimates should now be concluded, and on the motion of Mr. Cawley, seconded by Mr. McKay, the Board went into Committee to deal with the details.

This was done and after the consideration of the Estimates were concluded, on the motion of Mr. Cawley, seconded by Mr. McKay, the Board resumed.

It was moved by Mr. Cawley and seconded by Mr. McKay that the decisions arrived at by the Committee be confirmed as follows:—

(a) With regard to the Estimates for 1935-36, that the estimated expenditure be as as follows:—

	£ s. d.
Personal Emoluments:	
Secretary and Office Staff	2,492 5 0
Instructors and Supervisor	8,137 0 0
Instructors' Course at Hope and Expenses to Half-Yearly Meetings	125 0 0
Instructors' Contingencies, Tools and Equipment	75 0 0
Secretary's Office and Special Travelling	100 0 0
Printing and Stationery	100 0 0
Printing and issuing Journals and Half-Yearly Reports	800 0 0
Rent and Rates	58 0 0
Rent of Telephone	27 0 0
Postage and Telegrams	12 0 0
Maintenance of Office Equipment	15 0 0
Incidentals	50 0 0
Auditor's Fees	25 0 0
Books for Library	10 0 0
Show Equipment: Repairs and Maintenance	10 0 0
Experiments, Bombay Mango propagation plot, and Live Stock Subsidies	100 0 0
Instructors' Demonstration Projects	50 0 0

	£	s	d.
Citrus Budwood	25	0	0
Juvenile Branches	10	0	0
New Office Equipment	40	0	0
White Yam Competition	25	0	0
Beekeeping Industry	500	0	0
	£12,786	5	0

Estimated Revenue be as follows:—

Subscriptions	175	0	0
Affiliation and Journal Fees	175	0	0
Advertisements in Journal	350	0	0
Bank Interest, etc.	..		
Miscellaneous	10	0	0
Bee Industry Sales	30	0	0
Sales Department profits for 1935-36	400	0	0
	£1,140	0	0

That the required amount of £11,646 5s. be obtained by a request for a Government Subvention of £11,250, the remaining £396 5s. to be provided from the estimated reserve on the 1st April, 1935, amounting to £657 1s. 0d.

(b) That the permanent staff of the Office be as follows:—

One Secretary at £500 to £600 per annum by increments of	£25	0	0
One Assistant Secretary at £260 per annum	..		
One Accountant at £300 to £400 per annum by increments of	25	0	0
Three Senior Clerks at £156 to £200 per annum by increments of	10	0	0
One Cashier at £104 to £156 per annum by increments of	10	0	0
One Branch Clerk at £78 to £130 per annum by increments of	10	0	0
Three Junior Clerks and Stenographers at £65 to £104 per annum by increments of	10	0	0
One Seed Clerk and Storekeeper at £104 to £156 per annum by increments of	10	0	0

One Storeman at £52 per annum.
One Office Messenger and Cleaner at £39 per annum.

(c) That increments in the absence of definite agreements with members of both the *Office and Field Staff of the Society are not payable until the beginning of the financial* year.

Mr. McKay suggested that the First Vice-President should interview the Colonial Secretary regarding the Estimates.

Communications.—

(a) *Letter from C. S. O. covering report by the Government Microbiologist on shipment of seedling bananas.*—The following letter was presented:—

No. 5629/34. 14th November, 1934.

"I have the honour to transmit herewith to be laid on the Table at the next meeting of the Board of Management of your Society a copy of a report by Mr. F. E. V. Smith, Government Microbiologist, on a shipment of seedling bananas made by the Agricultural Department on the S.S. "Jamaica Pioneer" which left Jamaica on the 21st August, 1934."

(Sgd.) A. R. Dignum,
for Colonial Secretary.

The Secretary stated that he had also received a report from the Director of Agriculture on the second shipment of seedling bananas made from this Colony to England.

The Secretary was instructed to circulate the reports to the Board.

Office.—

(a) *Leave.*—(i) Application from Miss Hanson for two weeks leave of absence from the 17th—29th December, was submitted and approved.

(ii) Application accompanied by Doctor's certificate, was submitted from Mr. Macdonald for four weeks leave from 11th December to the 7th January, and approved.

The Secretary stated that during the absence of the Accountant on leave it would be necessary to have someone else countersign cheques drawn on the Royal Bank of Canada and on Barclays Bank. He suggested that Mr. J. M. McEwen be authorised to do this.

Hon. T. J. Cawley then moved, seconded by Mr. T. P. V. McDaniel "That Mr. J. M. McEwen be authorised to sign cheques in place of Mr. Donald Macdonald whilst Mr. Macdonald is on leave."

This was carried.

Diseases of Plants and Animals: Insect Pests.—

(a) *Panama Disease of Bananas—Reports for September and October.*—The monthly reports for September and October on the incidence of Panama Disease of Bananas, was placed on the table.

The Secretary stated that copies had been sent to members of the Board.

Shows.—

(a) *Dry Harbour Mountains.*—Letter from the Dry Harbour Mtns. Show Committee was submitted, advising the postponement of their Show from Easter Monday, 1935 to Easter Monday, 1936, and asking for a refund of the amount lodged by the Show Committee.

This was approved.

Branches, Resolutions, etc.—

(a) *Tweedside re transfer of Instructors from district.*—Letter from the Tweedside Branch was submitted, stating disapproval of the frequent changes of Instructors in that district and particularly the transfer of Instructor Thompson.

The letter was tabled.

(b) *Buxton Town re Press Report of their meeting of* 19.11.34.—Resolution from the Buxton Town Branch was submitted stating that an erroneous report of their meeting had appeared in the Gleaner, and requested that a copy of their resolution along with an account of what took place be submitted to the Board to be forwarded to the "Gleaner."

The Secretary was instructed to deal with this matter.

(c) Resolutions from the St. Catherine Branches Associated were dealt with as follows:—

(i) *Resolutions asking that a change be made in the Rules of the Society so as to give Direct Members locus standi at Branch Meetings.*

The Board decided that they had no power under the present rules to do this. It was suggested that Direct Members wishing to take part in deliberations at Branch meetings might become members of such Branches.

(ii) *Resolution suggesting amendment of the Rules of the Society to allow the holding of three meetings of the Society annually,* two Business meetings, and one Annual General Meeting, was submitted, and the Secretary instructed to circulate it among members of the Board.

(iii) Resolution asking that the Department of Agriculture instruct the Inspectors of Plant Diseases to visit the Ewarton District and give assistance with the treating of *coconut disease,* was referred for submission to the Director of Agriculture.

(iv) Resolution asking for the *inspection and treatment of milch cows* was directed to be forwarded to the Colonial Secretary.

(v) Resolution asking for the *reduction of taxes on horsekind* and horse-drawn carriages or as an alternative the reduction of the importation of motor vehicles, was tabled.

(vi) Resolution asking for the *investigation of local and foreign markets in connection with the Jippi-Jappa hat trade* was noted to be forwarded to the Colonial Secretary.

(vii) Resolution asking that the *Government explore possibilities of finding markets for grains*, etc., was noted to be forwarded to the Colonial Secretary.

(viii) The Secretary was instructed to refer the resolution asking for the *appointment of a Justice of the Peace for the Hampshire* section of the parish to the Custos of the parish.

(ix) Resolution asking for a Telephone Station at the Bartons Post Office, was noted for reference to the Postmaster for Jamaica.

(x) The Secretary was directed to forward the resolution asking that the Medical Officer of Health establish a ticket distributing centre at Content, to the Parochial Board, as also (xi), resolution asking that a *Parochial Dispensary be established at Bellas Gate.*

(xii) The Secretary was directed to advise the Association of Branches as to what was being done in regard to the question of the eradication of Yaws, about which three resolutions were submitted.

(xiii) The Secretary was instructed to forward to the Central Government the two resolutions submitted regarding the *treatment of Tuberculosis.*

(xiv) Resolutions asking for attention to the water supplies in the Brown's Hall, Lucky Valley, Bartons, Eddsbury, Paul Mountain and Fraser's Content Districts were submitted.

The Secretary was instructed to submit these to the St. Catherine Parochial Board.

(xv) *Resolutions re Roads and Bridges.*—The Secretary was directed to forward thirteen resolutions re roads and bridges to the proper authorities.

New Members.—

On the motion of Mr. McKay, seconded by Mr. McDaniel, the following were unanimously elected members of the Society.

E. H. Aikman, Secretary British Honduras Agricultural Society, Belize, British Honduras.

H. A. Forsyth, J.P., Port Antonio.

K. A. Patterson, J.P., Castle P.O

G. E. Dunn, Snow Hill, Port Antonio.

C. A. McPherson, Shortwood Road, Halfway Tree P.O.

L. G. G. Hawthorn, Guilsbro, Montego Bay.

Mrs. L. G. G. Hawthorn, Guilsbro, Montego Bay.

A. daCosta, Windsor Castle.

Lyle Wells, Maran Estate, St. John's, Grenada, B.W.I.

S. Albert Thompson, James Mtn. Farm, Ulster Spring.

F. A. Samms, 7 Mitchell St., Brown's Town, Kingston.

John F. Carter, C/o Standard Fruit and Shipping Coy., Farms Department, La Ceiba, Rep. de Honduras, C.A.

H. B. Edwards, C/o Jamaica Fruit and Shipping Co. Ltd., Kingston.

Other Business.—

(a) *Secretary's Report on Travelling for November.*—The Secretary presented a report on the travelling done by him during the month of November.

This was noted.

(b) *Report from Instructor McLaren re Mango Extension Plot.*—Secretary read the report on the progress of the Mango Extension Project at Llandewey.

(c) *Letter from Jamaica Anti-T-B. League re sale of Seals.*—Letter from the Jamaica Anti-T-B. League, requesting co-operation of Branch Societies in their annual appeal to the public to purchase seals as a means of procuring funds in aid of the Anti-Tuberculosis League, was read. The Secretary was instructed to offer the necessary assistance.

(d) The Secretary was instructed to deal with the resolution from the Belle Vue Branch *re treatment of Yaws.*

(e) Resolution from the Kentish Branch re construction of a road from Marlie Hill to Point Hill via Crab Hole and Garden Hill was submitted, and the Secretary instructed to forward same to the member for the parish, the Hon. T. J. Cawley.

(f) The Secretary was also instructed to forward the resolution from the Cambridge-Woodford Branch re the improvement of the road leading into the Cambridge-Woodford District, to the Hon. Mr. Seymour.

(g) Resolution from the Camberwell Branch was submitted, praying for the establishment of a Post Office at Camberwell. The Secretary was directed to forward same to the Postmaster for Jamaica.

(h) The Secretary was instructed to forward resolutions from the Balcarres Branch, asking for work to be done on the Kent Foding Bridge and for an extension of the road into the Crown Lands to the Member for the parish, the Hon. K. V. Abendana.

(i) Resolution from the Balcarres Branch was submitted, praying for the establishment of a Branch of the Government Savings Bank at the Balcarres Post Office.

The Secretary was instructed to send this resolution to the Manager of the Government Savings Bank.

The meeting then adjourned to Wednesday, the 2nd January, at 11.30 a.m.

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SOME NOTES ON CATTLE BREEDING.

By R. S. Martinez, Supt. of Agriculture.

It would be very difficult for a cattle breeding expert to determine the ancestry of the herd on some of the smaller pens in Jamaica. This is due to the fact that the owners have never had any continuous policy as to the type of animal they intend to produce, and have varied the breed of their bulls from time to time.

The selection of the bull is generally decided by such factors as:—

(a) Brown has a fine looking lot of Holsteins and has got some good prices for his heifers, so I had better get a Holstein bull. (Brown having good steady pastures whilst mine are very ordinary commons.)

(b) Jones has an old pure-bred Jersey bull which he will let me have for £10.

(c) Sarah's bull calf which was not castrated as he was accidently overlooked, has grown into a big animal, so I will give him a trial.

(d) I will borrow a bull from Robinson (breed no matter) until I can find one.

These reasons may sound absurd but they are perfectly true and could be elaborated on without departing from the truth.

When the results of this mixture become apparent by the production of a weedy-looking lot of undersized animals with staring coats the breeder decides that all this talk of using imported blood is rubbish, and the only thing to use is Indian. A large Indian of uncertain breed is next bought, and the whole process begins again.

The primary consideration in all cattle breeding should be, I think, a decision of what type and breed of cattle you intend to produce. Your decision must be based to a large extent on local experience. Factors such as the suitability of the locality to the breed, your potential markets, and the experiences of your neighbours are all important for your decision. Having made up your mind you are going to breed, say Jerseys, you must keep to Jerseys for at least three generations to give them a fair trial and to fix your type. A judicious admixture of Indian may be necessary if you are losing constitution but this does not mean using a pure Indian bull with a violent departure from your ideal type. A careful breeder would actually breed such a grade for use if the necessity arose. If you can keep to your selection, it is surprising how soon your place becomes known for a particular breed, and if your judgment has been sound you will soon get the benefit of increased prices.

In the pens where beef animals are produced I consider that the breeders should realise that the public are growing conscious of the fact that animals can be specially bred for beef and the days of prime cuts from superannuated tongue-steers are nearly over. The breeder who can produce an animal with definite beef characters will be able to sell his product more readily than the pure Indian or the mongrel type of animal.

The bull is the father of your herd, and he will influence your entire project, so economy wrongly applied at this end of your herd will have serious effects on your final returns.

The average pen-keeper who has a thoroughbred mare would be horrified if you suggested mating her with a scrub stallion—in fact he is willing to pay £10 for the service of some sire which he fancies. This same pen-keeper would be willing tp put at the head of his herd some bull that is less respectable than the scrub stallion, and would hesitate

to pay £20 for the bull who was going to be the sire of his calves for three years.

In the actual selection of the bull one or two points are worth noting:

(1) A runt is always a dangerous animal to use. The usual statement that "he has the blood" may be true if the animal has become a runt through poor feeding, but suppose the animal is a runt from congenital reasons. No real stock-breeder would use a runt even if it had the bluest blood in its pedigree.

(2) Another dangerous animal for a herd sire is a cross-breed. It is a well-known fact that cross-breeds are usually larger and stronger than either of their parents, but as a general rule they do not transmit their qualities to their progeny, as certain laws of genetics come into play. A grade animal is not a cross-breed, but one in which the greater part of his ancestry comes from one breed. In Jamaica nearly all the bulls available would be grade animals, as with the exception of some of the dairy breeds, very few females have been imported.

A very important point in the selection of the bull is to know something about his dam. One is so often told that the bull is the son of the imported animal, but nothing is said about his mother. As the mother has half the bull's ancestry, some enquiries should be made as to her merits. If records are available, these should be consulted. In the absence of records the mother and any other of her progeny available should be seen.

Another important point in all breeding is to have your new bull either growing or selected during the life of the bull actually being used. It is very bad policy to suddenly wake up to the fact that the bull in use has done his time, and has to be replaced. His successor should have been selected with considerable care some time before and not left to the hazard of what can be picked up at the moment.

If you buy a young bull something must be done to supplement his grass ration if you want him to grow out into a good specimen. Occasionally animals may develop on grass, but if you want an animal to do you credit you must give him some grain. To go back to our thoroughbred, unless our £10 service fee foal was fed before he was born through his dam, and very liberally during his first two years, there is very little chance of his developing into an A class horse. It is the same with your bulls.

With regard to the cows in your herd I consider the most important thing to do, is to keep some definite record of their histories. A breeding record is the only safe way of discovering the passengers in the herd. A cow which does not breed every year is a dead loss. A point which is of interest is that shy breeding is inherited so that a poor breeder may in time have a very positive effect on your calving if she drops a few heifers. Another cow which is dangerous is the one which never raises a good calf. The eccentric tempered animal is also a danger as her temper will be transmitted to her offspring, and in addition, she will tend to demoralise the whole herd.

If the herd is of the dairy type a milk record is absolutely essential, as otherwise you are working in the dark. The usual custom of valuing the cow on the amount of milk which she gives during the first two weeks of the lactation may be absolutely misleading. This is particularly true with animals with a large amount of Indian blood. A cow may start with an imposing performance of 14 quarts which in a few weeks has dropped to 4, whilst a less spectacular but more efficient animal will begin at 10 quarts, and six months later will still be giving 6. It is the year's performance that counts, and this can only be shown by records.

Records will indicate the animals that should be weeded out of the herd, and here a determined mind is necessary as the records will show that some of the animals in which you had a special interest are really only "flat catchers" and must be drafted.

I realise I am treading on dangerous ground but the not unusual practice of running the breeding herd with the calves on the commons and fattening steers in the grass seems to be wrong, as it cannot possibly be right to starve the calf during its most important year. I consider that this practice means that the steers have to be kept for an additional year to make up the growth they lost during this initial period. It is not the general practice in modern cattle raising where early maturity of the steer is a first consideration and the young stock are highly fed. This early maturity has not been seriously considered here, but the grower must realise the difference it would make if he could market his animal in 2½ to 3 years instead of from 3½ to 4 years. It really means nearly a 25% increase of his carrying capacity. Using beef breed bulls and a rigid selection of dams together with good feeding is the solution.

Overstocking is also a problem which requires firm handling. The grass area on any property can only maintain in good shape a limited amount of animals, and if we go beyond the maximum the whole herd is bound to suffer. The population must be based on an average year and not on a good or bad year. If the numbers are carefully kept down to the limits of the property, the forced sales of semi-starved animals which so frequently take place would not occur. The remedy is to sell your surplus when the animals are in good condition, and *not* when they are nearly dead from starvation. This overstocking really affects the small man as he begins with a cow and in a few years if he has any

THERE ARE PLENTY OF RISKS

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O. M. Franklin Blackleg Bacterin.

luck, finds himself with a small herd of ill-nourished animals which he cannot maintain in good condition. In his case yearly weeding out is essential.

If the general assumption that it takes a minimum of 4 acres of grass to maintain a cow is correct, it will be seen that 25 additional head of cattle would require another 100 acres of pasture, yet the average owner will cheerfully buy 50 head of stock if he finds a bargain, to put on a place which is already carrying its maximum load, and is amazed when the animals do not improve.

(Extract from American Hortigraphs, November-December, 1934.)

RATIONAL GRAZING MOST EFFECTIVE WHEN HERD IS DIVIDED.

Rational grazing of pastures produces the maximum benefits when the dairy herd is divided into at least two parts, states Professor R. E. Hodgson, dairy husbandman, Western Washington Experiment Station, Puyallup.

The first group, consisting of the milking cows, is permitted to graze each rotation unit only long enough to secure the flush luxuriant growth. *After the first 2 or 3 days of grazing on a unit, they are moved to a new field in the rotation series.* The second group, made up of the dry cows and heifers, follow to close-graze the coarse, stemmy pasture.

In this manner, says Professor Hodgson, the milking herd is always kept on fresh fields without being required to graze the less palatable portion.

IT IS OF CAPITAL IMPORTANCE that....

all milk used in the household should come from healthy cows, fed in the country, on rich pastures, that it should be perfectly pure and safe, with all vitamins and nutritious elements left intact.

This can only be attained where best organisation and conscientiousness co-operate. In this respect, the name of **Nestle's** means full guarantee. Indeed the Nestle Company is always on the level with the most up-to-date scientific methods for the manufacture of milk products. ***Therefore . . . . .***

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EDITORIAL COMMENTS.

Agricultural Planning.

The universal problem is the maintenance of income. The problem is common to the individual, the business company, the community, the nation. There always seem to be forces attacking the volume of annual income in the direction of its reduction, and the successful fight is only the result of the human foresight, ability, organization, work and capital, that is constantly and wisely utilized in what is a never ceasing struggle, and has been from time immemorial. The proper utilization of the assets just mentioned necessitates a plan, without which the success to be expected cannot otherwise but be impaired. It is in our lack in planning that we feel Jamaica has been weakest: we have been fortunate that in our past history one dying industry has been replaced by another more by happy accident than by good management; but in these modern times it would appear unwise to rely on recurrences of the kind. Trade and industry is no longer a national affair, improved world intercommunication has made it international. The trade or agricultural development of one portion of the world reacts with startling rapidity on others and so aggressive and progressive action towards the agricultural development of other countries demands from us, unless we are content to be smothered, similar action on our part. Strenuous world competition is at our doors, and has come to stay. Only too often we hear the view expressed that it is no use our planting certain crops as it is being largely planted in other parts of the world. This argument if carried to its final conclusion would cause abandonment and reversion to the primitive. The fact is that we can count no longer on monopolies of the production of any particular crop. We have either to compete with its production elsewhere or its substitutes. The conclusion must therefore be to grow crops in competition. Reverting to the necessity for a plan, our plan should be the improvement in the agricultural production of the crops we have, and a broadening of our agricultural foundations by the encouragement of other crops, and concurrently research with a view to the introduction of more and more profitable minor crops. The increase of the numbers of agricultural strings to our bow is in view of the Panama Disease of bananas not only an individual problem, but an Island one, and it is a realization of this that will prompt adequate national planning. The endeavour to plan immediately exposes a multitude of cultural marketing and credit problems, all important and requiring work, study, tact, and experience for their solution. There are for example the following problems which have already been thought about, but which have yet to be carried through; and which will have to be satisfactorily solved if the agricultural prosperity of the Colony is to be assured.

Agricultural Credit Facilities.
Banana Insurance.
Citrus Extension.
Conversion of Non-standard Citrus Varieties.
Reduction of Citrus Freights.
Co-ordination of Citrus Marketing.
Organization of and Assistance to the Live Stock Industry, covering both its Branches.—Beef and Dairy.
The Production of Virginia Tobacco for our own Home Markets.

If you are a planter you know!

You know that careful preparation of the soil, careful selection of the seedlings, careful maturing of the plants, result in the best crops. That cane juice extracted from the finest cane, grown under meticulous supervision, makes the best Rum. And you know that that is how CHARLEY'S RUMS are made, at Innswood.

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CHARLEY'S RUM.

There is ROYAL RESERVE (fifteen years old) for the Special Occasion, WHITE LABEL for the best Cocktails and Highballs, SPECIAL PUNCH RUM for mixing the world-famed PLANTER'S PUNCH as served at CHARLEY'S PUNCH BOWL. Even our lowest-priced Rums are good and pure.

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KINGSTON, JAMAICA, B. W. I.

Export of Pig Products.
Organization of Marketing of Grain.
Poultry as an Industry.
Production of Oil Seeds.
Improvement of our Cassava Production.
Fertilizer Studies relating to our Crops.
Increased Agricultural Educational Service.

We do not claim to have stated a complete list of our problems, but enough has been shown to show that considerable planning work lies ahead of us. It would actually seem that an agricultural commission was indicated, but for the fact that something more permanent is necessary. The Board of Management of the Jamaica Agricultural Society is the nearest approach to what is required and would the agriculturists of the country both large and small more enthusiastically support the Society and make their services available for the planning for our present agricultural necessities and future needs, our progress would be made more rapid, our recommendations more impressive and our services to the Colony of greater benefit than has been possible in the past.

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It is in your own interest to secure information on these various types of Insurance.

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CORONATION BUILDINGS, Kingston.

The Dominion Life Assurance Company,
Head Office: Waterloo, Ontario.

Speech of His Excellency the Governor, President of the Jamaica Agricultural Society, in reply to Address of Welcome by the First Vice-President at the Meeting of the Board of Management on Friday, December 7th, 1934.

I have a very peculiar and particular pleasure in being here to-day. I am going to ask you to bear with a little personal reminiscence on my part. About twenty-nine years ago I was serving in Ceylon. My post was Assistant Colonial Secretary. The Governor of the Colony was Sir Henry Blake who had come to Ceylon some time after leaving Jamaica. He was keenly interested in agriculture there—as he must have been here—and the position of agriculture in Ceylon, which like Jamaica, depends on its agricultural products. When he arrived in Ceylon he came to the conclusion that insufficient attention was paid to the problems in the villages and to the work in the different districts of the Colony. He thought that one of the best ways of securing the help for village agriculture was to establish a Ceylon Agricultural Society on the model of the Jamaica Agricultural Society. I was chosen out of the Secretariat to be the first Secretary, and one of the first duties that I had, was to communicate with the Secretary of the Jamaica Agricultural Society and endeavour to obtain as much information as I could with regard to the operation of this Society. I remember I had a large collection of your books, which I seem to remember were in green covers in those days. I have read a good many of them and I culled largely from extracts, and your Journals, for a leaflet on Ground Nuts with which I have often been taxed for information. This perhaps was not my only claim to be an author in regard to agricultural matters, as I was also a joint-author of a book on rubber, with two others who knew a great deal more about it than I did. I think I culled a little of the information I put into my book from a leaflet out of this excellent Journal of yours. I think in Ceylon we owed a good deal for the start of the Society there to Jamaica, to the Governor who was here, and to the assistance that the Jamaica Agricultural Society gave to us. I spent two and a half years as Secretary of the Society in which I had a great deal of work to do and a great deal of travelling, and it was a period of life that one remembers years afterwards nearly all the events of, when one was young and enthusiastic. I am still enthusiastic and I still like to think I am young. You can therefore realise that I do feel an almost sort of filial bond towards the Jamaica Agricultural Society and I was glad to know when I came here that it was doing things. You know there is a very great difference between talking things and doing things, and it will be a great pleasure to me to attend your meetings when things are being done, and when it is necessary that you should get further into touch with Government—I do not mean to say that you are out of touch with Government. You have Elected Members and others interested in the work of the Society on your Board, and it really speaks more than anything else to put your case forward fully. Of course it will be a help to the Government to know what is going on, and it may also be helpful to the Governor to keep in close touch with your work. I am not suggesting for a moment that the Governor should attend all your meetings. I cannot do it, and I am not suggesting that I can do it. I do not want to say I won't do it. It would be very ungracious of me. I do not think you want me at all your meetings. I think a Society of this kind should work on its own, and should get all the co-operation it deserves. You have a Vice-President who

knows all about the working and the necessities of the Society and one in whom you have confidence; you have a very good Board here to deal with the problems before you from time to time, but at times it is very good to be in touch with your President, and to be in touch with the Governor as such, and if I can do any service in duties of that kind, I will be happy to do so.

I am only sorry that I have not been able to see more of the country up to now. *I do not think a Governor can be of much help unless he sees things for himself.* I am not so sure that the aid of the motor car is the best for one at the head of an administration. We appreciate that there is a great rush in modern life, and with the aid of fast moving cars one rushes past places and does not see what is going on, in this rush of transportation. I think a Governor having legs should use them as much as anybody else. But there is no use using your legs and not your eyes, and your eyes perhaps help the most. Then after you use your legs and your eyes, you have to use your brain, and if you do this properly then you ought to get something done. I have only been here six weeks and I have not been called upon either to make definite proposals or to enunciate politics. I want to feel that we do not only talk about things. I want to get things done.

Co-operation is a subject about which a good deal can be said, but it is one on which a great deal should be done, and it is through the villages that one can get at the people themselves, and it is the people who really matter. The small man may not matter on a very, very big scale in some respects but he does matter as a smaller settler and a big worker. A small settler can be a big worker and as long as the small settlers take an interest in their crops, and as long as the Agricultural Society through its Board of Management, and the Agricultural Department, are taking interest in them as growers, and not merely dealing with what they regard as problems—the difficulty is small settlers often think we are dealing with problems and are not thinking of their own interests—their efforts will be attended with success. In agriculture we must come down to the ground.

I seem to have covered a lot of ground already, and therefore I had better come back to what is before us, and that is to thank you very much for the welcome extended to me.

* * * *

Farming of the future will be a joy to those who participate, only because it will be increasingly a matter of intellect rather than brawn. —*George M. Strayer in "Successful Farming."*

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OBITUARY.

By the almost sudden death of Mr. C. L. D. Morgan, on the 14th December, at his home at Seaforth, the Jamaica Agricultural Society has lost one of its staunchest supporters of the work the Society is doing to improve small farmers' agriculture. For close upon sixteen years he was Secretary of the Seaforth Branch, and was one of those schoolmasters who gave ungrudgingly of his time and energy to support the efforts of the Agricultural Instructors who laboured in the parish. His keenness in agriculture is reflected in the garden he kept, always in excellent condition and in the front rank of creditable gardens. Mr. Morgan was associated with Mr. Wates (late Instructor for E. St. Thomas) in organizing the first Association of Branch Societies, and up till the time of his death, his interest in the Saint Thomas Agricultural Branches Associated was maintained. He has for the past four years presided over the meetings as President,—even up to a fortnight before his death. Those who had the privilege of hearing him there, could not fail to realize that in him was a man deeply interested in the welfare of the people, and keenly so in the Agricultural Society's work among them.

U. A. McLAREN,
Agricultural Instructor.

THE USE OF SURPLUS TOMATOES TO PRODUCE JUICE.

(*Extract from Agricultural Bulletin, Bermuda, October*, 1934.)

Consideration is being given by the Department to the production of juice from surplus tomatoes as a means of assisting the farmer to profitably dispose of his ripe tomatoes in times of over-production.

In co-operation with tomato growers, the Department is arranging to supply hotels with fresh tomato juice daily during the coming winter. It is also hoped to supply fresh tomato juice daily to residents with the morning milk delivery, and supplies will be available at the Farmers' Market in Hamilton.

It is anticipated that the fresh juice will be sold as cheaply as imported canned juice, although it will be a much superior product because it will contain all the properties of fresh ripened fruit.

It is hoped that the project will assist in controlling the supply and demand of tomatoes in the local market to the benefit of the farmer and the consumer.

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Every farmer should institute some small trials to gather experience.

Fertility of Soils must be maintained if we are to exist.

DAIRY CATTLE BREEDING IN JAMAICA.

By T. P. Lecky.

(A Fourth-year Thesis for Course in Animal Husbandry at the Ontario Agricultural College, 1934.)
(*Continued*)

Summary of Breeds Tested.

Before comparing the different breeds, the writer wishes to bring out the necessity of one breed of dairy cattle only and then in comparing them to find out what breed is better adapted to our conditions and will likely make the best foundation to cross with Zebu cattle in producing a new breed which is essential and shall be proven when discussing Zebu cattle and their crosses.

The reason for one breed only:

1. The Island is too small to accommodate more than one dairy breed, as the area is very limited from which milk can be drawn to supply the towns.

2. With one breed we are able to develop community breeding, and the larger the number of cows the greater will be the variation and the possibility of selecting the right animals to breed from.

3. Time will be saved by a larger number of animals and the cost of producing a new breed (if all the dairymen co-operate) will be divided over more individuals, thus lessening the expense that each one necessarily will have to bear.

4. Competition within the breed will be keener and the sale of the right bulls will be easier.

5. It will lessen inbreeding though essential in this project.

6. It will stop the common practice of trying different bulls of different breeds which has been resulting in mongrel cattle.

7. A centre of a breed attracts buyers to it and other tropical countries will tend to buy our cattle, which cannot be accomplished with several breeds in the same area.

8. The development of one breed is enough and two breeds will mean too much expense and crowding, with the result that both would have to be merged into one or go under, or take a very long time to accomplish any economical progress.

With these factors in mind let us see what breed comes nearest to the one that should be selected. The comparison of breeds is open to criticism as each has its good points, therefore the reader must be sympathetic as it is intended for the interest of the Island as a whole and not a fad. We have now reached the point where our breeding programme must be placed on a sound basis rather than putting it off any longer—for the sooner we start the quicker we will be through with the trying part of this project.

1. Let us compare the breeds first from size, which has been discussed by several breeders. Dr. Hammond (2) in his Report stated that the larger breed of cattle in Jamaica degenerated more than the smaller breed, due to the lack of protein feed since the larger breed requires more nutrients for maintenance and growth. In case of the Holstein, ...y are the largest breed and hence suffer more.

... will be remembered in the study of feeds point out the high cost ..., and therefore the most economical user of it should be ... In the dairy centres it is too expensive to produce beef and

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therefore one cannot take the value of an animal from the butcher's standpoint to sway his arguments.

The Ayrshire and Brown Swiss will not be taken into account so that this leaves us to choose on this point between the Guernsey and Jersey. If the larger breeds cannot get enough to grow fairly fast, they are going to be late in production, which is the case even at the Hope Farm, e.g., Norbrook 2nd (Holstein) calved after four years and Norbrook 4th (Jersey) under three years—both are the leading cows in their breeds and out of the same dam.

An animal that is limited in its growth and development will be limited in its capacity though it has the necessary factors for production.

2. Let us consider the production of the three breeds since 1920. From the graph presented it will be seen that the Holstein produced the most milk (over 6,000 lbs. as an average for the 19 cows that qualified and the Jerseys 5,500 lbs. as an average for 44 cows) when we study the daughters from the bulls used. The Jerseys were highest in butter-fat of the three breeds.

From an economical point of view the Holsteins' production did not qualify them to be leading over the other breeds as they were larger cows and required more feeding. Of the number qualified for the herd there were 34% in the Holsteins; 53% in the Guernseys and 66% in the Jerseys.

There are too many failures in the Holsteins for profitable dairying. if these figures form an index to the breed.

The Jerseys were higher than the Guernseys in milk and butter-fat, also the number qualified. From the graph showing the frequency it will be seen that the curve for the Jerseys is more uniform. It therefore shows that less factors had an abnormal effect on the Jerseys than on the other breeds as the curve was nearer the normal frequency distribution. One would not like to say that from a point of production alone one can select any of these breeds as the numbers tested were not sufficient to decide, yet there were 66 Jerseys, 45 Guernseys and 53 Holsteins that were taken into account and this data point clearly in favour of the Jerseys. Not included in the 66% were 6% that went in auction sale; 3% reacted to Tuberculosis test, which would have qualified and raised the total to 75% in the Jerseys.

There are no purebred Holsteins to compare with those of the Jerseys and the number of Guernseys are small. From the daughters of Pogis, Hope Pogis and Glen, it will be seen that they are quite useful cows. The purebred Guernseys on the other hand, were failures from a production point of view. If this is an indication of the percentage of Zebu blood necessary, then it will be obvious that we cannot go very far without introducing Zebu blood in them, while on the other hand the Jerseys would not require as high a percentage and the time at which the Zebu blood is required (all things being equal) would be after three or four top crosses.

3. Ability to stand up to the climate: it is essential for an animal in the tropics to have dark skin so that it will be able to filter out most of the ultra-violet rays, as is seen in the hide of the Zebu cattle. The hide of the Jerseys in this respect resembles the Zebu more than the other breeds. The Holstein colour would absorb too much heat even if it protects it against the ultra-violet rays—this is why on hot days we find them suffering from the heat more than the Jerseys. If they were white-skinned they would suffer more from sunburn and other deterioration. It does not seem to be either extremes but a diluted intermediate

as in the case of the Zebu. The other visible factor why the Zebus are best adapted from a climatic condition is the sparse covering of hairs. Short haired cattle have a distinct advantage in the tick infested areas, as it lessens the possibility of being badly attacked by ticks. Mr. Cousins said that from his experience in Jamaica (5), "imported Guernseys are among the most delicate Northern Cattle we have tested at the Hope Farm. They are decidedly less hardy than the Jerseys, due apparently to the latter being a "brunette" while the Guernsey is a "blonde animal."

4. Prepotency. By prepotency we mean that an animal is carrying the factors for the phenotypes in question or even the genotypes more of which are in an homozygous state so that it will be able to transmit the required factors with more certainty to its offspring.

A breed to be chosen as the foundation for a new breed should be prepotent to as high a degree as possible (e.g., Pogis 99th of Hood Farm 40th in which there were less discards among his offspring than any other bull used). This is necessary both from type and production, since we are intercrossing two different species "bos tarus and bos indicus." The reason for this high prepotency in Jerseys lies in the fact that the average number of cows on the Island of Jersey is around 10,000 and they are in close proximity to each other—the law forbidding any cattle to land except for slaughter immediately as early as 1763—and the show system whereby the Champion bull stands for service all over the Island.

With these factors close breeding must have to be practised and there is where the reason for it lies. As shown by many geneticists that close-breeding tends to homozygosity while out-crossing gives heterozygosity. This is important when we are considering of a breed to be the foundation of the new breed.

5. In Jamaica we have more graded Jerseys than any other dairy breed and there are herds which were formerly of Holsteins and now are Jerseys—notably the leading private herd in the dairy centre. All the breeds here discussed were tried by private breeders at different periods, yet with the factor of size against them, the Jerseys have the greatest influence on our dairy cattle.

Guernseys were in Jamaica as early as 1872 because there is on record to show that Governor Sir John Peter Grant had imported some that were used at King's House. The writer does not think that it would be possible to carry on two new breeds, and since Trinidad is working on the Holstein-Nellore cross in order to produce a new breed, it would not be necessary or advisable to duplicate it, and should the Trinidad breed prove satisfactory we could easily change over to it; therefore we should either choose the Jerseys or the Guernseys.

In summing up this we noticed that the Jerseys suffered less deterioration than the other breeds tested, due to its size, colour of hide, shortness of hairs and its high prepotency; while the other breeds suffer from the lack of one or more of these factors and are lessened in their efficiency as a breed—thus the high percentage of culled animals. We also have the right material to work with in larger numbers available to commence in producing a breed that is suitable for the tropics. On the other hand, it would require a few more years to get enough Guernseys and Holsteins with which to make a start. When we examined the frequency chart in production we saw that in the case of the Jerseys the curve was normal, while in the Holsteins or Guernseys it was very one-sided, showing that environment is playing a greater part and may be due to lack of adaptation.

Red Polls:

Prior to 1911 a few Red Poll Bulls were imported into Jamaica for crossing on native cattle. The result of these crossings were in some cases failures, while other breeders reported a certain amount of success. In 1911 the Government decided to try this breed and 11 heifers and 1 bull were imported from England. Results of this importation are as follows:—

No. 1 heifer gave 1 bull and yielded 3,946 lbs. milk.

No. 2 heifer gave 1 bull and aborted twice. Her best yield was 6,330 lbs.

No. 3 heifer gave 10 calves—highest lactation 6,267 lbs. (See generation of Red Polls in Jamaica.)

No. 4 heifer gave 1 calf and died shortly afterwards.

No. 5 heifer gave 1 calf and died from tick fever.

No. 6 heifer gave 8 calves—best lactation 4,874 lbs. (See No. 3.)

No. 7 heifer gave 12 calves and was the outstanding cow. (See No. 3.)

No. 8 heifer gave 13 calves and was a very useful cow.

No. 9 heifer gave only one bull calf.

No. 10 heifer had no calves in Jamaica.

Of these cows only four have left their mark in the present herd. In 1912, 14 heifers were imported into Jamaica from England. The results of this importation are as follows:—1 proved to be barren, 7 died in 1913 and had produced 5 bull calves and 2 heifers which were failures.

The 6 tested of this importation are:—

No. 1 gave only 1 bull calf. Highest lactation 3,669 lbs.

No. 2 gave 6 calves of which none remained in the herd. Highest lactation 4,813 lbs.

No. 3 gave 1 bull calf and died in 1914 from arsenal poison; best lactation 3,687 lbs.

No. 4 gave 2 bull calves—highest yield 3,932 lbs.

No. 5 gave 4 calves but left no descendant in the herd.

No. 6 gave 1 cow calf before she died.

Of these 14 heifers imported in 1911 none have left any of their decendants in the present herd and have been more or less a loss to the Farm.

In 1919 it was decided to import some cows from the U.S.A. to see what effect this would have as the change in Jerseys was very remarkable. Four cows were obtained from one of the most outstanding Red Poll herds in the United States. Results of this importation are as follows:—

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Cow No. 1 gave 2 bulls and 2 heifers—the heifers were below the herd standard.

Cow No. 2 gave 3 calves, none of her progeny are in the herd.

Cow No. 3 produced 7 calves—through one of her daughters her descendant is in the herd.

Cow No. 4 gave 6 heifers of which 2 heifers were used in the present herd.

Results of imported Red Poll Cows into Jamaica have been very unsatisfactory and if four cows of the first importation had not been successful it might have been a complete failure. Thirty one cows were imported and only six had anything like success in building up the herd. They have had the greatest opportunity to do well of all the breeds tested and have failed to make any showing in the dairy centre. Of a total of 110 purebred Red Polls—53 made their appearance in the herd and had an average of 4,392 lbs. milk.

Results of the Stud Bulls used:

Bull No. 1 "Rendelsham Royal Bey" was imported in 1911 from England. He sired 91 calves, of which 20 were purebreds and 43 graded heifers out of which 8 were used is the herd,—the rest failed. One of the purebred heifers was satisfactory as a Dairy Cow and one of the graded.

Bull No. 2 "Sudbourne Crowfoot J. 6" was born in Jamaica 1911 and was bred in England. He sired 47 calves 11 cows and 4 bulls as purebreds and 13 graded heifers. Nine of the purebreds were tested in the herd and 3 graded, of which one was satisfactory.

Bull No. 3 "Panama Jr." was imported from U.S.A. in 1919. He produced 98 calves; 56 heifers of which 17 purebreds were tested and used in the herd and 3 grades—the rest did not qualify or made their appearance as dairy cattle. Panama has been more successful than the English bulls used.

Comparison of daughters with their dams (Purebreds).

	Daughters.	Dams.
Average lactation	5,053 lbs.	4,334 lbs.
Average butter-fat	189.6 lbs.	169.9 lbs.
Average test	4.2%	4.0%

Milked 14, Foster-mothers 2, culled 11, died 1—28.

Bull No. 4 "Ruperta's Teddy" was imported in 1928 from U.S.A. He was an outstanding show bull with backing in production—he brought a great deal of popularity to the breed and after he was in Jamaica few months there were enough bookings for his purebred sons which were not able to be filled within five years. He produced the outstanding cow of the breed "Hope Beauty" with 9,044 lbs. milk, and sired one of the best grown bulls at a year old in Jamaica which weighed ... lbs. at one year of age. Hope Beauty weighed 1,602 lbs.—the heaviest female of all the breeds in Jamaica. She gave her first calf when she was five years old. Comparison of his daughters to their dams:—

	Daughters.	Dams.
Average lactation	5,425 lbs.	5,079 lbs.
Average butter-fat	293.4 lbs.	199.4 lbs.
Average test	4.7%	3.9%

Bull No. 5 "Leona's True Lad" was imported from U.S.A. and was never beaten in Show Rings in his class and at three years old he was Grand Champion in 1928 at the International Show in U.S.A. He

landed in Jamaica in 1929. His daughters have not been tested as yet.

Summary of Red Poll Breeding through the bulls since 1920:

	Daughters.	Dams.
Average lactation	5,151 lbs.	4,530 lbs.
Average butter-fat	222.7 lbs.	166.5 lbs.
Average test..	4.4%	4.0%

Milked 19, culled 15, foster-mothers 2, died 3—39.

No. of cows above 9,000 lbs. milk	2	350 lbs. butter-fat	2.
No. of cows above 8,000 lbs. milk	–	300 lbs. butter-fat	
No. of cows above 7,000 lbs. milk	–	250 lbs. butter-fat	2.
No. of cows above 6,000 lbs. milk	3	200 lbs. butter-fat	8.
No. of cows above 5,000 lbs. milk	5	150 lbs. butter-fat	4.
No. of cows above 4,000 lbs. milk	5	100 lbs. butter-fat	2.
No. of cows under 4,000 lbs. milk	5	100 lbs. butter-fat	1.
Total	19		19

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PANAMA DISEASE OF BANANAS.

The Hon. A. C. Barnes, Director of Agriculture, at the January Meeting of the Board of Management of this Society, drew attention to a most serious situation in St. Mary, i.e., the disregard of the Panama Disease quarantine regulations.

Mr. S. M. Walker, a member of the Board, and a St. Mary planter, deplored the necessity for such a statement and strongly denounced those who offended in this direction.

The matter is of such importance that we publish Mr. Barnes' speech *in extenso* below.

Addressing the Board of Management, Mr. Barnes said:—

"I should like to call attention to a serious state of affairs which exists in the parish of St. Mary. As you are aware, some six months ago Government approved of the 'one-root treatment' as it is called, being applied generally throughout the parish. The approval was given with very great safeguards, including the retention of the provision whereby no area which had been placed under quarantine through Panama Disease could be replanted with bananas or any other crop without permission. It is with deep regret that I have discovered that several people in the parish have taken the alteration in the method of protection to mean that they can do whatever they like with lands formerly infected.

Members of the Advisory Board on the Banana Industry, including the First Vice-President of the Society, took considerable pains to explain in great detail what the position was; the Inspectors of Plant Diseases charged with the administration of the Panama Disease Order as well as the Supervising Inspector, have taken considerable trouble to bring all the facts to the notice of the people.

Quite recently I have had to write strong letters to planters of the parish who ought to know better, calling their attention to the very great danger of increasing the spread of the disease by disturbing infected soil, and I am afraid that before very long I shall have to call together the members of the Advisory Committee to find out what their views on the matter are. I thought I would ventilate this real danger that is being brought about by the disturbance of soils that were formerly infected. We know that the views on the incidence of Panama Disease and its spread vary considerably. We know that efforts that have been put forward by the Government through the Department of Agriculture during the last twenty-two years or so have very materially assisted in checking the spread of the disease. I think that one can say that something like 20,000 acres have gone out of banana cultivation in that time due to the disease, which is slightly less than an average of 1,000 acres per year. Of course in the earlier stages the acreage was not so great but during latter years it has increased. When one considers conditions in Jamaica and conditions in Central America where the disease swept through hundreds and hundreds of acres, which went out in a flash, one realizes the excellent work which has been done by control measures here, and I appeal for the consideration and co-operation of every banana grower in the country and for the creation of a proper public opinion in this matter.

We realize that the banana industry is our staple industry. We have already said that everything must be done to support it in time of difficulty, and I submit that we must even go further and do everything to protect it.

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CITRUS.

Orchard Ladders.

On page 485 of the August Journal of 1934, we illustrated a rather useful looking type of orchard ladder. Since doing this we have had one made for demonstration purposes and this ladder is now in the St. Thomas-ye-Vale Instructoral district and available for loan to citrus farmers who are willing to provide their own transportation for moving it about.

The ladder has proven a very safe and convenient one. What is of special interest is that, its cost proved quite modest, amounting to £1 4s. 8d., which amount covers both labour and material necessary for its construction.

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CORRESPONDENCE INVITED.

HINTS ON CARE AND MANAGEMENT OF JACKS.

Secretary, Jamaica Agricultural Society, Kingston.
Dear Sir,

I submit for publication in your Journal, at your convenience information sent us by the Manager of The Cook Farms of Lexington, Kentucky, entitled by him "Growing and Caring for Jacks," in connection with the importation of Jack, "Senator Owen," now at Grove Place.

You might give the above history and credit for the article, and state further that the writer is the breeder of the present 19 year old jack at Grove Place known to the public as Kentucky Boy, a grandson of a past World Champion Jack, which was imported for Grove Place in September, 1920, at a landed cost of £338 by the Govt. of Jamaica. Further, that Kentucky Boy is being superseded by "Senator Owen" now at Grove Place, from the same Cook Farms of Kentucky, now named Kentucky Jack Farms of Lexington, Kentucky, U.S.A. This Farm breeds Mammoth Jacks, Jennets and Saddle Horses and can be recommended by the Department of Agriculture as a reliable and proved stud from which jacks and jennets may be imported by breeders of these animals in Jamaica who desire to make importation of their own.

Yours very faithfully,
S. LOCKETT,
Govt. Vet. Surgeon.

9th Jan., 1935.

GROWING AND CARING OF JACKS.

The most important part of growing a young jack is to start him right. When we wean our jack colts or buy yearlings, we put them with filly or horse colts and let them run in a paddock of one to two acres, where they can get plenty of exercise at all times. Colts (young jacks) of this age, and until they are put in the stud, should not be allowed to see a jennet or mule, and should not be allowed in the stables where jennets and mules are kept, but should be kept about horses, especially young colts and fillies.

When young jacks are allowed to run together or in the pasture with jennets and mules they become sluggish and cannot be broke (trained) and are worthless as breeders. Every precaution should be exercised to get the young jack on a familiar footing of friendship with the young horse stock, while he is young.

The principal feed is mixed and clover hay, pea hay or alfalfa, cut oats and fodder. From one-half to a gallon of shelled, hulled oats and about one-half gallon of bran per day. The best and cheapest feed in the fall is cut cane and green corn. This can be fed to good advantage and is the cheapest feed for three or four months during the fall (latter months of the year).

If you will give your jack a good stable, away from other stock, with the door open to the south where he can run in and out at will, there will be little danger of sickness or sores caused from feeding too much corn and not getting enough exercise. We have known of many jacks being good producers for fifteen or eighteen years.

Jacks should be fed very little corn, (maize) one to three ears at a feed and this to young jacks that are getting plenty of exercise.

They should not be shod, and if so not very long at a time, as it holds manure on their feet and will soon cause thrush. We have seen many good jacks ruined by being kept shod and standing in unclean stables.

A SHERLEY'S DOG BOOK

Will be given to any dog owner who would like to know how to correctly feed and treat their dogs.

We carry in stock some of

SHERLEY'S FAMOUS DOG MEDICINES AND FOODS.

CONDITION POWDERS
WORM POWDERS
FORMALIN SOAP
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SKINCURE
SULPHO
LINTOX
CANKER POWDER
Also SPRATTS DOG AND PUPPY BISCUITS
,, MANGE CURE
,, PUPPILAC
,, BIRD SEEDS
,, PARROT FOOD

Pamphlets on the Care of Birds and Animals can be obtained free of cost.

'NKEAD, Ltd. - Kingston.

The best remedies we have tried for jack sores, first, is one-half flour and one-half air slaked lime, dusted on three or four times a day. The second remedy is verdigris (copper acetate) and sweet milk mixed to a paste, kept in a glass jar and applied with a wooden paddle. Some remedies will cure one jack and some another, but we have used both of these with good results.

Green

Grow

the Grass

But you needn't have your grass growing long if you don't want it to

We offer

LAWN MOWERS

at reasonably low prices

AGUILAR'S

104 HARBOUR STREET

YOUR CULTIVATION WILL SUPPLY ITS OWN MANURE
With the help of ADCO

Turns waste vegetation into rich manure.

Material for unlimited manure lies on every hand. Waste vegetation and crop residues of all kinds become rich organic manure by the addition of ADCO and water. ADCO hastens decomposition of vegetation and greatly improves its fertilising value. ADCO manure is not a mere chemical imitation. It is natural manure, rich in humus. Makes poor soil prolific at low cost. ADCO has proved its worth in the hottest, driest and most exacting climates.

Prices from GRACE, KENNEDY & CO., LTD.

SMALL STOCK SUBSIDY.

It appears that it is not as generally known as it should be that the Society has a small stock subsidy plan as a means of encouraging the rearing of better and more profitable breeds of small stock in the colony. Their plan is subsidizing the acquiring and maintenance of approved small stock sires all over the country.

We are reproducing below regulations governing the plan and now that it has again been brought to public attention, we trust that its value will be appreciated and that every Branch will make an endeavour to avail themselves of the advantages of the plan.

Rules Governing Small Stock Subsidy Plan.

1. Subsidies may be authorised by the Board of Management of the Jamaica Agricultural Society for—(a) small stock sires owned by any approved party, (b) as part of purchase money for small stock sire to be acquired by any approved party.
2. The amount of such subsidy to be 50 per cent. of the value of the animal.
3. The owner of the subsidized animal must undertake that such animal be available for inspection at any time during daylight by officers of the Jamaica Agricultural Society, or members of the Board of Management.
4. The owner of a subsidized sire must undertake to provide services on order from any member of the Board of Management, the Secretary, the Supervisors, the Instructors, and any officers of a Branch of the Jamaica Agricultural Society. Also any other party duly authorized by the Board of Management.
5. The fee to be charged will be fixed by the Board of Management on each subsidized animal in agreement with the owner.
6. The owner must undertake to keep books of record showing services given and the name of the owner to which service has been given and date of service.
7. An annual subsidy for maintenance shall also be paid the owners of subsidized animals which would be for boars, not more than £4 per annum, for ram goats not more than £2 12/-, and for ram sheep not more than £4, such subsidy to be paid in quarterly instalments on the certificate of the Instructor. To qualify for this payment the records must show a minimum of 30 services per annum for goats, pigs and sheep.

The Brown's Town Benefit Building Society,

ESTABLISHED 1893. INCORPORATED 1899.

SHARE CAPITAL £126,430.

ASSETS £109,519. RESERVE £12,961

GOOD INVESTMENTS. LIBERAL ADVANCES.

EASY TERMS REPAYMENT.

FOR PROSPECTUS AND FULL PARTICULARS APPLY

C. OWEN COVER, BROWN'S TOWN, ST. ANN, JAMAICA.

JAMAICA SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS.

Make a friend of your horse, care him well so that he may serve you faithfully.

ARMSTRONG'S Linoleum Floors

BRING LASTING BEAUTY
TO ANY ROOM . . . AT A
PRICE YOU CAN AFFORD !

CHEER up ! It's not nearly so bad as you might think—that problem of what to do with "those awful floors." Here's the answer: Armstrong's Linoleum ! You'll be delighted with the way it gives new life and brightness to tired rooms.

SOLE AGENT IN JAMAICA:

DONALD S. BARHAM, Ja. Mutual Bldg., Kingston.

FOR SERVICE.

Imported Bucks, Belgian Hare, "Duke" and New Zealand Red **"Ted Supreme."**

For fees and further particulars,.

Apply 4 Beechwood Avenue.

GINGER.

Ginger Competition.

We are very happy to be able to announce that through the generosity of two prominent traders in ginger, Messrs. D. J. Scott & Co., of 38 Lombard Street, London, E.C. 3, and Mr. J. Stephen Miller of Christiana, two ginger competitions have been organized.

This valuable minor industry can stand some expansion, and as in nearly every other industry, is meeting the problem in overseas markets of serious competition from other British tropical colonies, chiefly the African colonies.

The quality of our ginger exported of necessity has to be maintained if we are to hold our markets and maintain our prices.

We expect some very keen competition indeed from ginger planters, and trust that the results of the competition will be a permanent improvement in the processing methods of our Jamaica ginger.

Advertisements appear in other pages of this Journal giving full information as to method of entry, and the prizes offered in the competitions. These prizes are very generous ones indeed.

The Secretary will be very pleased to offer any information in connection with the matter.

Rules Governing Ginger Competition, (Messrs. D. J. Scott & Co., London.)

(1) The Competition is open to all bona-fide ginger growers or planters.

(2) The samples tendered for competition are to consist of one full size package, either barrel or bag in which the ginger is usually shipped abroad.

(3) The samples entered for competition in Classes A, B and C are to be packed in barrels and Class D in bags.

(4) The entry form should be filled in by the competitor and returned to the party in Jamaica from whom it was received or to the Secretary of the Jamaica Agricultural Society, not later than May 31st, 1935.

(5) Packages entered for competition should be marked with the letter designating the class followed by the competitor's registered No. No other marks are to be put on the packages.

(6) No competitor may enter more than one sample in each class.

(7) The samples will be paid for in cash in Jamaica at the full market price prevailing at the time of delivery and further details regarding the latest time and place for such delivery will be published in the Journal of the Jamaica Agricultural Society at a later date.

(8) Judging will take place in London by judges to be selected from leading Brokers and other experts engaged in the Ginger Trade.

Rules Governing Ginger Competition. (Mr. J. Stephen Miller, Christiana.)

The competition is open to all growers of ginger in the Island. The judging will be done at Christiana by judges who have no personal interest in the growing and buying of ginger, and the decision of these judges will be final.

The date of the judging will be in the month of April, and will be announced later.

JAMAICA GINGER COMPETITION 1935

FOR

CASH PRIZES

TO BE PRESENTED BY THE FIRM OF

D. J. SCOTT & CO.,

38, LOMBARD STREET, LONDON, E.C. 3.

Class A.

A Single Prize of £5 0 0 for :—
The Best Extra Fine Selected No. 1 Bold Quality Ginger.

Class B.

Three Prizes as follows :—
A First Prize of £5 0 0.
A Second Prize of £3 0 0 and
A Third Prize of £1 0 0 for
The Good Bold No. 1 Quality Ginger.

Class C.

Three Prizes as follows :—
A First Prize of £3 0 0.
A Second Prize of £2 0 0 and
A Third Prize of £1 0 0 for
The Medium Bold No. 2 Quality Ginger.

Class D.

Three Prizes as follows :—
A First Prize of £3 0 0.
A Second Prize of £2 0 0 and
A Third Prize of £1 0 0 for
The Ordinary Mixed No. 3 Quality Ginger.

Entry Forms may be obtained from :—
THE JAMAICA AGRICULTURAL SOCIETY.
Messrs. ADOLPH LEVY & BRO., Kingston.
Mr. HAROLD A. WAITE, Christiana.

Intending competitors must, however, give in their names not later than the first week of February, 1935, at the office of J. Stephen Miller, Christiana.

Diseases of Ginger.

Much interest is being developed in the production of ginger at the present moment, and this product is no exception to the general rule of our agricultural products in having plant diseases peculiar to them.

The Instructor for Upper Clarendon and Upper Manchester reported a disease locally called Black Rot, and advised the ginger planters to treat it in the following manner:—

"The employment of regular "cross" or "bed" trenches when fields are being laid out, to retard spread by surface washing in case of an outbreak; observance of proper ventilation, planting in rows, and avoiding planting of cassava, yams, cocoes, etc., among ginger.

He further advised treatment with lime—a handful to the root."

We forwarded the report from the Instructor to the Government Entomologist and his letter in reply is of interest, and is reproduced below.

Government Laboratory,
Hope, Kingston P.O.,
6th November, 1934.

"With reference to your letter No. 424, accompanying an interesting report from Instructor W. L. Shirley on an outbreak of Black Rot of Ginger in the Smithville area, and with reference to your letter No. 423 addressed to the Director of Agriculture submitting a report from Instructor Graham on the occurrence of the same disease in the district around Christiana, I have to inform you that this disease, Black Rot, which has been recorded in the Island since 1901, is of fungoid origin and attacks a variety of plants amongst which are coffee, yams, cocoes and avocado pears. It has never been reported as causing heavy losses.

The measures of control which Mr. Shirley has advocated are excellent. As additional measures should however be applied, I shall enumerate them for your guidance and so that you might kindly refer the information to the Instructors concerned.

1. *So as to check the spread of the disease:*
   a. Isolate affected plots from the rest of the field by means of a trench dug all around.
   b. Dig up all affected plants and one or two rows of apparently healthy ones next to them and destroy the whole by fire.
   c. Apply quicklime and plough or fork leaving the soil exposed to the sterilizing action of the sun.
2. During a year or so plant the infected area with crops which remain immune.
3. When laying new plantations of ginger take care to ascertain that the rhizomes are not diseased (recognisable by the black streaks in their tissues.)

Remaining entirely at your disposal for any further information you may need, believe me."

(Sgd.) W. H. Edwards,
Govt. Entomologist and Acting M/ieb.

When corresponding with Advertisers, mention the Journal of the JAMAICA AGRICULTURAL SOCIETY.

LASCELLES, DE MERCADO & CO., LTD.

14½ Port Royal Street,

KINGSTON.

SEE US FIRST !

—WE BUY—

COFFEE (Clean & Parchment)	**COCOA** (Wet & Dry)
GINGER	**HONEY**
PIMENTO	**ANNATTO**

GOATSKINS

AND ALL OTHER ISLAND PRODUCE.

Are you Buying LASCELLES Ground Coffee ?
Sold Everywhere in the Famous

2 oz.

SEALED PACKET

FOR

(1½d.) **A QUATTIE** (1½d.)

LASCELLES, DE MERCADO & CO., LTD.

KINGSTON.

BEEKEEPERS MARKETING ASSOCIATION.

We reproduce for the information of all beekeepers the marketing contract which was considered at the recent public meetings convened at the offices of the Jamaica Agricultural Society in an endeavour to form a marketing association.

The contract as it appears was only tentatively accepted, as it was well understood by those present that it would have to be submitted to legal advisers.

We are awaiting the response to our circular, inviting contributions for the defraying of certain of the preliminary legal expenses as these contributions will be the proof that beekeepers seriously desire a marketing organisation, and without which any further step would be probably fruitless.

As soon as any considerable proportion of the peekeepers favourably respond to the circular another meeting will be promptly called.

Editor.

Association Ltd.

Honey Marketing Contract.

This Agreement made this day of One Thousand nine hundred and Between of in the parish of (who and whose executors and administrators are hereinafter called "The Beekeeper") of the one part and the Association Ltd. a Company duly incorporated under the Laws of Jamaica with its registered office at Jamaica (who and whose assigns are hereinafter referred to as "The Company") of the other part witnesseth that the parties hereby agree with each other as follows:—

1. The Beekeeper shall bear and pay his proper proportion of charges as hereinafter set forth and for the purposes of this Agreement:—

(a) "Charges" herein shall include sums required for the payment of interest and sinking fund in respect of loans made for building and purchasing, erecting repairing or reconstructing processing and storage houses and machinery for the handling and processing of honey, wax and other bee products and all rent and other expenses in respect of the foregoing and in connection with the leasing, renting, taking on hire of any such processing and storage houses and machinery and also all charges incident to handling, packing, processing, insurance, transportation, freight, marketing and selling and also all sums expended in the acquisition and upkeep of all real and personal property of the Company, and all expenses outgoings and losses paid or incurred by the Company in any manner whatsoever and also contributions made to the Association Ltd., and also all other expenses and charges incurred or paid and all deductions authorised by the Memorandum of Articles of Association of the Company.

(b) "Crop Year" shall be the year from the thirty-first day of December in one year, to 31st day of December of the next year within which the bee produce are disposed of by or on behalf of the Company.

(c) "Charges per Unit" shall mean the proportion per gallon of honey or pound of wax or other bee products supplied to and accepted by the Company which each producer shall be liable to bear and pay of the charges paid, deducted or incurred during the crop year. Each Beekeeper shall bear and pay in respect of each unit supplied by him and accepted by the Company during a particular crop year a pro rata proportion of such charges based on the number of units disposed of during the crop year as aforesaid.

(d) "Net Price" shall mean that portion of the gross average sale price per unit of the particular kind of honey, wax or other bee products comprised in its particular pool or sub-pool which remains after deducting the charges per unit thereon.

(e) "Average price per unit" of the particular kind of honey wax or other bee products realised for all honey, wax or other bee products comprised in each pool or sub-pool completed during any period shall be that sum which shall be arrived at by deducting from the gross average sale price per unit of the particular kind of honey, wax or other bee products in each pool or sub-pool the amount of the

charges on that unit arrived at by allocating to each such unit of honey, wax or other bee products its pro rata proportion of all the ascertainable charges paid, deducted or incurred during the period from the date of the first acceptance of honey, wax or other bee products by the Company in the particular crop year to the end of the particular period in question.

2. Subject to the terms of this Agreement the beekeeper agree to deliver to the company for sale on his behalf or to such person firm or company as the Company may from time to time direct all honey, wax or other bee products that may be produced for or by him provided however that the beekeeper may withhold any such honey, wax or other bee products for the purpose of use for maintaining his bees and apiary supplies during such time as the Company may by consent in writing permit him so to do, such consent not to be arbitrately withheld, and may also dispose of any honey, wax or other bee products which the Company may decline to accept, provided further that the giving or refusing of any such consent by the Company shall be entirely in the discretion of the Company and that upon giving any such consent the Company may impose such terms upon the beekeeper as the Company may deem fit.

3. Subject to the terms of this Agreement the Company agrees to sell to the best advantage on behalf of the Beekeeper all such honey, wax or other bee products fit for export and fit for local consumption that may be produced for or by him and delivered to them or at their direction and accepted by them. The Company may decline to accept honey, wax or other bee products if and when and in so far as in their absolute discretion they deem it to be unmarketable.

4. As it will not be practicable to keep separate account sales of honey, wax or other bee products supplied to and accepted by the Company from the beekeeper and other beekeepers who may make like agreements with the Company (the beekeeper and such other beekeepers hereinafter referred to as "Beekeepers") the Company will aggregate out of such honey, wax or other bee products a number of pools as hereinafter prescribed. Each pool shall be made out of a particular kind of honey, wax or other bee products so supplied and accepted and that may be shipped from Jamaica for sale or that may be sold by the Company in any other manner during such period or periods as may from time to time be fixed by the Company. The Company may also appoint a grader or graders with power to grade the honey, wax or other bee products in each or any pool and create separate sub-pools therefor.

5. The beekeeper shall be entitled to be paid in manner as hereinafter set out the net price of each unit of honey, wax or other bee products supplied by him and accepted by the Company under the terms of this contract.

(a) The beekeeper shall on delivery or at the end of each current week be entitled to such advance against each unit of honey, wax or other bee products delivered by him and accepted by the Company (of fifty per cent. of the estimated net price of such unit of honey wax or other bee products) as the Company may decide.

(b) The Company shall as soon as practicable after the expiration of each quarter in each crop year ascertain the average price per unit of the particular kind of honey, wax or other bee products realized for all honey, wax or other bee products comprised in each pool or sub-pool completed during the preceding quarter and shall advance to the beekeeper in respect of each such unit of honey, wax or other bee products forming part of such pool or sub-pool and supplied by him and accepted by the Company such sum as the Company may determine not exceeding seventy-five per cent. of the said average price per unit of the particular kind of honey, wax or other bee products less all such amounts as may have been advanced to him under sub-clause (a) hereof in respect of such unit of honey, wax or other bee products.

IS YOUR BATHROOM A BACK NUMBER?

There is nothing more essential to the family's good health and comfort than a hygienic, modern well appointed bathroom.

Refit your bathroom now, we have everything in

SANITARY FITTINGS

Baths—5′ 6″ & 6′. Basins. Bidets.
Low Down Closets. High Up Closets.

The Standard Furnishing Co., Ltd.,

127—129 Harbour Street, (Opposite Colonial Bank.)

ALSO RETAILERS IN FANCY GOODS, HARDWARE, ETC.

(e) Within three months after the end of each crop year, and as soon as practicable, the Company shall ascertain the entire charges for the crop year, the charges per unit and the net price of each unit of honey, wax or other bee products shipped for sale or sold during the crop year and thereupon all accounts pro and contra between the Company and the beekeeper shall as far as practicable be adjusted and paid.

6. The Company shall use its best efforts to market the said honey, wax and other bee products to the best advantage and shall have exclusive direction and control of all matter relating to any sales of honey, wax or other bee products by it. Delivery of honey, wax or other bee products shall be made by the beekeeper at depots controlled by the Company.

7. The beekeeper hereby appoints the Company his sole agent and attorney for the full term hereof:—

(a) To transact business and take such action as may be necessary incidental and convenient for dealing with the honey, wax or other products of the beekeeper.

(b) To dispose of the said honey, wax or other bee products of the beekeeper in whatsoever way it shall judge to be to the best advantage of all beekeepers.

(c) To collect all Insurance moneys and to settle any and all claims for damages which may occur in the honey, wax or other bee products of the beekeeper during transit by land or sea or that may arise in connection with the exercise of any of the powers or authorities vested in the Company.

(d) And generally to do all such things as they may think necessary in the interest of the beekeeper.

8. The beekeeper shall on demand from time to time furnish the Company promptly any and all information or statistical data requested by the Company concerning the honey, wax or other bee products of the beekeeper being produced or to be produced or capable of being produced by or for the beekeeper.

9. This agreement covers all honey, wax or other bee products now being produced or that may during the continuance of this agreement be produced from all apiaries in which the beekeeper is or may be interested and which he controls or may control. The beekeeper hereby expressly declares and warrants that he is at present interested and controls apiaries on the lands described in the first Schedule hereto and on no other lands and undertakes immediately upon becoming interested in and controlling any further apiaries to give notice thereof with full particulars of the lands on which the same may be situate to the Company.

10. The beekeeper shall in addition to any other penalty penalties or impositions for which the beekeeper may be liable under the Articles of Association of the Company or any Law and without prejudice to any other rights of the Company pay to the Company in respect of any honey, wax or other bee products sold or delivered by the beekeeper otherwise than in accordance with the terms and tenor of this agreement an amount equivalent to twice the value of the products sold, which said amounts shall be regarded as liquidated damages for breach of this agreement and not as a penalty and the beekeeper shall also be liable at the discretion of the directors of the Company to forfeit any interest in the accumulated reserves and sinking funds of the Company as may be subsisting at that date as well as all or any rights and interests under Clause 5 c. hereof.

11. The Company shall keep or cause to be kept full and strict accounts of all honey, wax or other bee products under the terms of this agreement showing dates of delivery, grades, class and quantity of the dealings with the same and shall from time to time as reasonably demanded by the beekeeper furnish to the beekeeper all information and accounts concerning same.

12. The beekeeper shall with the consent of the Company (which consent shall not be unreasonably withheld) have full and free access to all books papers and accounts in the possession, control or power of the Company, touching any of the honey, wax or other bee products delivered by the beekeeper under the terms of this agreement.

13. The honey wax or other bee products to be supplied by the beekeeper under this agreement is expressly subject to the existing contract (if any) mentioned in the Second Schedule hereto which contract if determinable by the beekeeper shall be determined by him on his being required so to do by the Company. The beekeeper shall not be required to supply to the Company any honey, wax or other bee products which may be subject to such existing contract as aforesaid, until such contract is determined or expires.

14. All processing and storage houses and machinery for use in connection with honey, wax or other bee products acquired for the purpose of the Company shall when the same shall have been paid for continue to be operated by the Company, but all beekeepers, past or present members of the Company, whose honey, wax or other bee products have been marketed through the Company prior to the said processing and storage houses and machinery being paid for shall on their being paid for be credited with an amount equal to the aggregate sinking fund contributed while the processing and storage houses and machinery were being paid for. Such amount shall be allotted between the beekeepers pro rata in proportion to the number of units of honey, wax or other bee products marketed by them through the Company, the allotment if necessary being made in

accordance with the advice of an actuary employed by the Company. After the said processing and storage houses and machinery shall have been paid for, a charge for their use shall be fixed by the Company, which charge will allow of a payment of interest or dividend of not less than six per cent. per annum, nor more than ten per cent per annum on the amounts so credited to the several beekeepers together with a sinking fund of five per cent. per annum on the said amounts so credited, as to secure the repayment of such amounts. Such sinking fund shall so each year be paid to the beekeepers and written off the amount credited to them the interest being accordingly reduced the amount of sinking fund is being continued until repayment in full of the several amounts. The amounts credited to the several beekeepers shall be recoverable in the manner indicated and not otherwise.

15. Sections 7 and 8 of Law 5 of 1928, are hereby excluded and shall not be operative in respect of this contract. Furthermore upon a transfer conveyance or lease of any apiaries producing honey, wax or other bee products the subject of this contract, the Company may if they deem fit by consent in writing release the beekeeper from the covenants and obligations imposed by this contract in respect of such honey, wax or other bee products, and thereupon this contract shall be deemed to be cancelled in so far as it relates to such honey, wax or other bee products and such apiaries (without prejudice to the adjustment of outstanding accounts) and all shares in the Company (in case of a transfer, conveyance or lease of all the relevant apiaries of the beekeeper) or such shares as may have been issued to the beekeeper in respect of the honey, wax or other bee products being produced from the apiaries being transferred, conveyed or leased and which may respectively have been issued to the beekeeper in respect of his contract shall thereupon (as the case may require) be deemed to be transferred by such beekeepers to the directors for the time being of the Company and to be held by them in trust for the remaining shareholders of the Company present and future in proportion to the other shares for the time being, that may be held by such shareholders respectively.

16. The Company or any firm person or company purchasing or handling the same shall have the right to reject and decline to accept for sale all honey, wax or other bee products that may be in any way imperfect, unmerchantable or unfit for export.

17. This agreeement shall continue in force for seven years from and after the day of next following the date when this contract shall come into force and thereafter from year to year with liberty to either party to terminate the contract by six calender months previous notice in writing expiring on the day of in any subsequent year. Upon termination of this contract by a beekeeper his shares shall be deemed to be transferred to the directors and to be held by them in the same manner as is provided in paragraph 15 hereof in respect of the shares therein mentioned.

18. Notwithstanding anything hereinbefore contained it is hereby expressly declared that all contracts for sale of honey, wax or other bee products by the Company, shall be made by them as agents for the beekeeper and that the Company assume no responsibility, obligation or any liability other than as such agents and that the Company are liable to make the payments hereinbefore provided for only out of cash proceeds from the sale of honey, wax or other bee products when received by the Company, after retaining the charges thereon.

19. The Company shall not be liable to accept from and shall not account to the beekeeper for any honey, wax or other bee products of which the Company may be unable to accept delivery, or which if they were to accept delivery, they would be unable to market or dispose of for any of the following reasons:—

(a) War in which Great Britain, United States of America, Canada or any other country is involved.

SHOP AT

"R"

HANNA & SONS CHAIN STORES

THE HUB—91 King St.	KIDDIES SHOP—95 King St.
79½ King Street.	3 King Street
BARGAIN UPSTAIRS.	RIVAL SHOE STORE—33 King St.
REGENT SHOE SHOP.	HANNA'S BARGAIN STORE.

WHERE ABSOLUTE SATISFACTION IS GUARANTEED

(b) Quarantine of ships owing to any epidemic in Great Britain, United States of America, Canada, Europe, Jamaica or elsewhere.

(c) Suspension or curtailment of steamship service or failure to obtain shipping space from Jamaica to any markets abroad.

20. All notices shall be well and sufficiently served upon the beekeeper by being delivered to him personally or sent by registered post, addressed to him at

21. The beekeeper recognises that this agreement is one of a series dependent for its true value upon the observance by each and all beekeepers of each and all of the said agreements and to the intent that the beekeepers may benefit by the co-operative marketing effort underlying same, undertakes that he will loyally and faithfully abide by the terms of this agreement and that he will in every way available to him, loyally and faithfully help and assist the Company in the efforts of the Company to consolidate the beekeepers of Jamaica into one body for joint protection and co-operative action.

22. This agreement shall not come into force until two weeks after the Company shall give notice to the beekeeper, but if no notice be given by the Company within a period of six months from date hereof this agreement shall in all respects cease to be binding and effective.

As witness the hands of the parties hereto the day and year first above written.

FIRST SCHEDULE.

Name of Property No. of Hives

Parish

Nature of possession
Particulars of Title

Estimated Production of Honey Wax or other Bee Products.

Honey Cask.
Wax lbs.

SECOND SCHEDULE.

Existing Contract
Name of Company or other persons
to whom the honey, wax or other bee products
is so contracted
Date of Expiration.

Signature of Beekeeper
Signed by the said Beekeeper in the presence of:—

(Witness signs here)

Signed by the Beekeeper he being unable to read or write affixing his mark hereto after the same had been read over and explained to him and he had expressed himself perfectly to understand the same in the presence of:—

(Witness signs here)

Association Ltd.

by

Director
Secretary

The Common Seal of the Association Ltd., was hereto affixed in the presence of and this contract signed on behalf of the Company by Director and

Countersigned by
in the presence of:—

(Witness signs here)

VEGETABLE MARKETS.

We are hardly further in the vegetable industry than the stage known s "talking about it." This of course is because we have been rtunate in the possession of several important staple crops which has ıade the existence of a vegetable industry not a stark necessity.

In Bermuda where the vegetable industry is the staple industry we nd that after exploiting the Canadian markets, the most vigorous ttempts are now being made for exploiting the English ones. The nglish markets for us in Jamaica might even prove more valuable han the Canadian markets if we would set about organizing vegetable xport.

We reproduce below an article published in the Agricultural Bulletin f the Department of Agriculture, Bermuda, the last paragraph of which s most striking. It reads:—

> "The Department is now developing plans to make experimental shipments in commercial quantities to the United Kingdom during the next crop season."

We are very glad to be able to announce that our Department of griculture plans to make experimental shipments during the season, nd we hope very earnestly for success.

The matter is of great importance and should not be lost sight of.

Editor.

(Extract from Agricultural Bulletin, Bermuda, October, 1934.)

THE UNITED KINGDOM MARKET FOR BERMUDA VEGETABLES.

At no time since the growing of vegetables for export became an nportant factor in the economic life of Bermuda agriculture has there een such need to explore every avenue which may prove to be a profitble source of outlet for the crops which the farmer can raise economically ı commercial quantities. The American market offers no possibilities r the time being at least, and the Canadian market can only be eveloped gradually. There is need, in the meantime, to find healthful nd remunerative employment for the growing population of the Colony, ence the need for an export market for our vegetables to supplement hat we already have in Canada.

The general depression following the World War brought many ıanges in the economic life of most civilized countries, and one of the emarkable changes was the advent of the National Government in reat Britain and the scrapping of the traditional free trade policy f the country. Since that time Great Britain has become more mpire-minded in a commercial sense than every before, and much rogress has been made by the enactment of protective tariff legislation nd agreements designed to encourage trade within the Empire.

There appears to be an opportunity whereby Bermuda agriculture ıay be benefited considerably by a market for its vegetables in Great ritain, as with favourable tariff protection, and a vast population oncentrated in a compact area to cater to, there is reason to believe ıat the market is there waiting to be developed.

HISTORY OF IMPORT DUTIES IN UNITED KINGDOM.

Import duties or certain foreign horticultural products entering the nited Kingdom were introduced at the beginning of 1932. These ere imposed by an order issued under the Horticultural Products

(Emergency Customs Duties) Act, 1931. In March, 1932, a duty of 10 per cent. ad valorem was imposed under the Import Duties Act 1932, *on all foreign products imported* (with certain exceptions). Additional duties on certain products were introduced on 17th November, 1932, by an order issued under the *Ottawa Agreements Act* 1932.

The following duties on similar Bermuda vegetables were in effect in January, 1934:

Commodity.	*Amount of Duty.*
Carrots	2/4 per cwt. all year.
Cucumbers	March 1st to November 30th, 8/- per cwt. Balance of year, 10 per cent. ad valorem.
Green Beans	January 1st to August 31st, 9/4 per cwt. Balance of year, 10 per cent. ad valorem.
New Potatoes	November 1st to June 30th, 4/8 per cwt. July 1st to August 31st, £2 per ton. September 1st to October 31st, £1 per ton.
Tomatoes	June 1st to July 31st, 2d. per lb. August 1st to October 31st, 1d. per lb. Balance of year, 10 per cent. ad valorem.

The Choice of Thousands.

Every Christmas Hamper
should contain a $3\frac{1}{2}$ lb. tin

JAMAICA MADE

Assorted Sweet Biscuits.

Ideal to Give or Receive.

MANUFACTURED BY
THE JAMAICA BISCUIT CO., LTD.

Imports of potatoes into United Kingdom in each month during 1933, were as follows:—

January	85,000 cwt.
February	65,000 "
March	126,000 "
April	266,000 "
May	1,378,000 "
June	1,455,000 "
July	297,000 "
August	58,000 "
September	21,000 "
October	51,000 "
November	72,000 "
December	54,000 "
Total	3,928,000 "

Total expressed in Bermuda barrels, 2,618,000.

The above table showing the monthly imports of potatoes in 1933 aggregates nearly 4 million cwt. Spain leads in the quantity exported, with a total of 1,504,000 cwt., followed by the Channel Islands and the Netherlands with 1,590,000 and 686,000 cwt. respectively.

In view of the fact that there is a substantial duty of 4/8 per cwt. on potatoes of foreign origin entering the United Kingdom during the months of November to June inclusive, there appears a possibility that a good demand might be created in the United Kingdom for Bermuda potatoes in season.

Imports of tomatoes in each month of 1933, *showing countries whence received, expressed in cwts.*

Month.	Channel Islands.	Netherlands.	Canary Islands.	Other Countries.	Total.
January ..	..	..	157,000	1,000	158,000
February ..	..	..	180,000	..	180,000
March ..	..	..	228,000	1,000	229,000
April ..	3,000	..	282,000	2,000	287,000
May	115,000	26,000	213,000	..	354,000
June	166,000	37,000	7,000	..	210,000
July	169,000	57,000	1,000	..	227,000
August ..	208,000	59,000	1,000	..	268,000
September ..	379,000	30,000	..	..	409,000
October ..	136,000	35,000	41,000	..	212,000
November ..	7,000	5,000	220,000	1,000	233,000
December ..	..	..	135,000	1,000	136,000
Totals ..	1,183,000	249,0000	1,465,000	6,000	2,903,000

Expressed in Bermuda crates, the total reaches over sixteen and a quarter million crates.

Imports of carrots into United Kingdom.

No figures are available from the British trade returns as to the volume of carrots imported, but from the trade returns of the Netherlands for 1933, the United Kingdom is credited with having imported 12,504 tons of carrots. Expressed in Bermuda crates, it amounts to over half a million crates.

Considering the fact that there is a substantial duty of 2/4 per cwt. on foreign carrots entering the United Kingdom the year round, opportunities to sell Bermuda carrots appear good.

The Department is now developing plans to make experimental shipments in commercial quantities to the United Kingdom during the next crop season.

DAIRY NOTES.

We are very pleased to announce that the Jamaica milk record has recently been broken by a cow at Hope, and the particulars appear hereunder.

We are sure it will be of great interest throughout the colony as it demonstrates at least the possibilities of good breeding.

The information was kindly given by Mr. J. W. Howe, Farm Superintendent, Hope Farm.

It will be of interest to the breeders of dairy cattle in Jamaica to learn that a record for milk production amounting to 29.15 quarts per day, has recently been made by a cow at the Government Stock Farm, Hope.

The cow responsible for the record is Nancy, age 3 years 8 months. It is the first calf of this cow, the calf being dropped on December 1st. The cow made her record on December 9th, giving in one day 75.8 pounds of milk or 29.15 quarts. Over a thirty-day period this cow produced a total of 1,398 pronds of milk, an average of 46.6 pounds or 18 quarts per day.

The breeding of this cow is as follows:

Sire—Sir Fancy Romeo Posch, a pure bred Holstein bull imported from Canada and now herd sire for the Holstein herd at the Farm.

Dam—Baby 2nd, sired by Pusa, a pure bred Montgomery bull at the Stock Farm. The grand-dam of Nancy is Baby 1st, a grade Jersey. It will be seem from the breeding that Nancy is half Holstein, the other half being Montgomery and Jersey blood.

As this is the first calf from this cow it is expected that she will improve on her present record, during her future lactations, as a good dairy cow usually reaches her maximum production during her third or fourth lactation, or at the age of about six to seven years.

FOR **FISH MANURE**

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ROLL-CUT SECATEURS

Barb Wire Agricultural Forks Budding Knives

GO TO

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113 HARBOUR STREET, KINGSTON.

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HOES, SPADES, SHOVELS.
BOX SHOOKS.
FLORIDA PATTERN.

Send all enquiries to

HARDWARE & LUMBER LTD.

L. deCORDOVA, Manager.

MARKETING NOTES.

(Extract from Weekly Fruit Intelligence Notes, London, 14th November, 1934.)

Exports of Bananas from Cameroons under British Mandate.

	1927.	1928.	1929.	1930.	1931.	1932.	1933.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Fresh	..	..	..	1,353	10,217	14,832	16,789
Dried	115	247	1,127	1,436	445	463	533
Total ..	115	247	1,127	2,789	10,662	15,295	17,322

Annual imports of bananas into Germany in the three years 1931-33 averaged about 105,000 tons, as compared with an annual average of 36,000 tons in the three years 1911-13, representing a three-fold expansion in the consumption of this fruit since pre-war years. Jamaica continues to supply a large proportion of Germany's requirements; out of a total of 96,000 tons of bananas imported into Germany last year, imports from Jamaica amounted to about 55,000 tons. The German trade figures include both fresh and dried fruit, but the proportions of the latter is comparatively negligible.

A tthe present time the competition offered by the Cameroons bananas on the German market may be regarded as of minor importance, but

CROPS DON'T JUST GROW!

EFFICIENT FARMERS GROW THEM AND

THEY FERTILIZE

WITH

BAT GUANO and PERUVIAN BIRD GUANO

THESE ARE

ORGANIC MANURES.

The land building qualities of organic manures are universally recognised. In other countries organic fertilizers are more expensive than are inorganic fertilizers.

Our product being fortunately produced within the Island, we can supply as cheaply as imported organic fertilizers.

WE GUARANTEE ANALYSIS

WE OFFER EXPERT SOIL SERVICE

We gladly test soils for acidity, available nitrogen, phosphoric acid and water soluble potash, and supply mixtures suitable to the needs of the individual buyer. We don't sell blindly nor wish you to buy blindly.

We count among our customers some of the best known Planters in Jamaica.

For Quotations apply, J. M. WHITESIDE, Falmouth.

if shipments continue to expand at the same rate as in the last two or three years, a substantial part of Germany's requirements may be met from this source of supply in the future.

(*Extract from Weekly Fruit Intelligence Notes, London, 21st Nov., 1934.*)

Seville Orange Crop.

The Committee's correspondents at Seville report that the bitter orange crop in the Seville district is expected to be considerably heavier than last season. Shipments are expected to begin in the latter part of December and are likely to amount to 350,000 half-cases. A large part of the crop is normally sold by this time of year, but so far this season no sales have been effected either to the United Kingdom or Canada.

Shipments of bitter oranges from Seville last season were unusually light on account of frost damage to the crop in December. Total shipments amounted to 159,000 half-cases, of which the United Kingdom took 146,000 half-cases, as compared with 295,000 half-cases in the 1932-33 season of which 276,000 half-cases came to this country.

(*Extract from Weekly Fruit Intelligence Notes, London, 28th Nov. 1934.*)

TRINIDAD.

An official report on the grapefruit crop in Trinidad states that it is expected that about 80,000 boxes of grapefruit will pass through the Packing House of the Co-operative Citrus Growers' Association this season, of which, provided the present standard of quality is maintained, about 75 per cent. will be for shipment.

As stated in the "Notes" on 14th November, the bulk of the grapefruit exported will be of the *Marsh* variety.

(*Extract from Weekly Fruit Intelligence Notes, London, 28th Nov. 1934.*)

ARGENTINA.

The following shipments of potatoes from Argentina are advised:

Andalucia Star, due at London on 6th December, 100 boxes.
Afric Star, due at London on 14th December, 300 boxes.

(*Extract from Monthly Reports on Produce Markets from Messrs. Gillespie Bros. and Co., Ltd., London, 28th Nov., 1934.*)

Sugar—The month just closing will be memorable as the one in which the price of Sugar touched the lowest point on record, namely 3/10½ per cwt. c.i.f. for Foreign Raws, basis 96°, the equivalent of about 2/4½ per cwt. calculated on the gold basis.

If this low price were really justified, producers of Sugar might well lespair; but the fact that the dèbâcle is due to special and perhaps only emporary causes gives grounds for believing that the worst has been een and the turning point reached.

It is a most unfortunate circumstance from a producers' point of iew that the period in which the full weight of home-grown Beet lugar is thrown on to the market should coincide with the arrival f Colonial preferential sugars in this country. It will readily be seen hat at such a time, parcels of Foreign Raws will only interest refiners t "knockout" prices—and it is *these* prices which fit the basic quotation f this sugar published to the world.

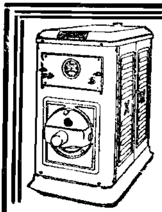
In order to arrest further decline, and to lift prices from the rut into which they have been forced by the seasonal glut, the Beet Sugar interests in U.K. have considered the question of storing some of their sugars for a time. They have further proposed to relieve the market by moderate purchases of Foreign Raws when such sugars are being forced for sale.

The result has been a quickening of market activity, distributors awoke to the fact that their stocks were low, and rushed in to buy, while increased interest on the part of refiners caused an advance of nearly 6d. per cwt. from the recent lowest point. Sales during the month include Porus, etc., 3/10½ to 4/4½ c.i.f. with preferentials at 3/9 per cwt. premium.

(*Extract from Weekly Dairy Produce Notes, London, 23rd Nov.,* 1934.)

IMPORTS OF CHILLED AND FROZEN PORK IN OCTOBER.

Imports of chilled and frozen pork declined during October, but were more than twice as large as in the same month a year ago. Shipments from Australia were more than double last year's figure, while New Zealand supplies increased by 64 per cent. Imports from the United States were six times as large, and from Argentina 2½ times as large, as a year ago. The total quantity imported during the ten months, January to October, 1934, showed an increase of 95 per cent., as compared with the same period of last year, heavier shipments being received from both Empire and foreign sources. Details are shown in the table below:—



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OPERATES QUIETLY
EFFICIENT
RELIABLE
ECONOMICAL
EASY TO OPERATE

For Particulars, Terms, Etc.
Write To
111 Water Lane. A. LEO ARD MOSES Kingston.

Imports of Chilled or Frozen Pork into the United Kingdom.

Country whence consigned.	October.		Jan. to Oct.	
	1934.	1933.	1934.	1933.
	Cwts.	Cwts.	Cwts.	Cwts.
New Zealand	37,632	23,022	346,629	218,396
Australia	7,496	3,194	70,551	54,647
Canada	809	720	18,569	13,405
Southern Rhodesia	..	..	66	..
Irish Free State	..	32	..	32
United States of America ..	19,630	3,015	232,802	40,468
Argentina	41,426	16,431	243,231	140,333
Brazil	*1,791*	*2,274*	8,666	7,231
Uruguay	47	..	335	..
Italy	..	..	..	6
Total Empire Countries ..	45,937	26,968	435,815	286,480
Total Foreign Countries ..	62,894	21,720	485,034	188,038
Total all Countries	108,831	48,688	920,849	474,518

(*Weekly Dairy Produce Notes, London, 9th November*, 1934.)

Pork.—The following wholesale prices of pork are based upon actual sales at the London Central Markets, Smithfield, on Thursday, 8th November, and reflect the day's run of prices of first and second grade pork at per stone of 8 lbs.

PORK PRICES (per 8 lb. Stone).

Description.	This Week.		Last Week.	
English (Under 10 stone)	5/8	6/6	6/-	6/8
English (10 to 15 stone) ..	4/10	5/8	5/-	6/-
English (15 to 20 stone) ..	4/4	4/10	4/-	5/-
Irish (suckers)	5/8	6/4		..
Irish (small)	5/4	6/-	5/8	6/8
Irish (medium)	4/8	5/4	5/-	6/-
Irish (heavy)	4/2	4/8	4/-	4/10
Australian	4/-	4/8	4/-	4/8
New Zealand	4/-	4/8	4/-	4/-
Argentine	3/8	4/4	3/8	4/4
U.S.A.	3/8	4/4	3/8	4/4

The following prices supplied by the Imported Meat Trade Association, Incorporated, are average prices for 1st quality during the week ended 8th November, on the basis of delivery to Smithfield Market and for ex-London Stores. Last week's prices are in parenthesis. New

Zealand Pigs 60/80 6¼d. per lb. (6¾d.); 81/100 6¼d. per lb. (6½d.); 101/120 5¾d. (6d.); Australian Pigs 60/100 (av. 80) 6¼d. (6¾d.); 101/120 5¾d. (6d.).

Local Produce Prices.

Annatto—Well cured, Red Seed	18/- delivered Kingston
Cocoa—Ordinary	17/- delivered Kingston
Fair Fermented ..	17/- " "
Estates Fermented ..	17/- " "
Coffee—Good Ordinary ..	32/- " "
Fine Ordinary ..	34/- " "
Manchester—B ..	34/ " "
Manchester—A ..	36/ " "
Honey—White	2/3 per gln. delvd. Kingston
Pale	1/9 " " "
Light	1/6 " " "
Dark	1/3 " " "
Kolanuts—Sound quality, well cured	6/- delivered Outport 7/- delivered Kingston
Orange Oil—Sweet, sound quality	4/- per lb., delvd. Kingston 4/3 containers free.
Sarsaparilla——Well cured, Red Roots	40/- per 100 lb., net weights delivered Kingston
Wax—Pure and clear ..	7d. per lb. net weights, delivered Kingston.

McKINNONS COFFEE MACHINERY

Will assist you in securing high prices for your Coffee

PULPERS

PEELERS

POLISHERS

OBTAINABLE FROM

REGINALD AITKEN,

122 TOWER STREET, - KINGSTON.

IRISH POTATOES.

Experiments.

Efforts are being made to locate a variety of white potatoes which will be acceptable to the United States, Canadian and English markets.

Encouraging results have been obtained with a new white variety, "Katahdin," produced by the United States Department of Agriculture. Plantings of the variety have been made at the Agricultural Station during the last two years, concurrent with the Garnet and Cobbler seasons. The tubers are very smooth, good eating quality and up to the present their keeping qualities appear to surpass any of the tried varieties.

The plants have the habit of tubering on long roots a good distance away from the main stem, which is a protection against "black eye rot" caused by the fungus *Phytophthora infestans* (late .blight) Their immunity to this was very marked in plantings made at the Agricultural Station last January along with Cobblers, Green Mountains, Garnets and Triumphs. All four varieties were planted within two days of one another, and all took the blight about the same time. The blight was kept under control in all cases, but the tubers of all but Katahdin showed considerable "blackeye rot" a short time after digging. Twelve bushels of tubers of the Katahdin were placed in cold storage at the end of April, and when they were withdrawn from storage at the beginning of September, they were in perfect condition.

One barrel of seed originating in Maryland, U.S.A., was planted in Long Island along with the Triumphs this summer, and eight barrels of the progeny were received with the first shipment of Triumphs received from Long Island. These have been distributed amongst farmers for planting concurrent with the Fall Triumph crop, and for further tests at the Agricultural Station.

Should this variety prove satisfactory seasonable plantings may be controlled by raising seed locally or on Long Island for the Fall crop and in Nova Scotia for the second crop.

In the plantings of Katahdin at the Agricultural Station for the past two years no trace of leaf-roll or mosaic has been noticed.

Four new varieties of potatoes will be tried out at the Agricultural Station this season; they are named Fortyfold, Golden Wonder, Improved Irish Cobbler and Early White. These are said to be highly resistant to blight.

A Record.

(Extract from American Hortigraphs and Agronomic Review, September–October, 1934.)

New Hampshire's new Potato King, Arthur Price of Madbury, last year broke all records in the State's eight-year-old 300-bushel Potato Club by a margin of 18 bushels. He produced 524 bushels, according to the *New England Homestead*, Vol. 107, No. 9, which quotes Mrs. Price, in part, as follows:—

> "On two acres, we used a total of one ton of 8-16-20 fertilizer and on the other two acres we used a total of two tons of 4-8-10 fertilizer. And note this: neither our county agent, nor the men from the extension service at the State University, nor Mr. Price, could see any difference between the yields of these two grades of fertilizer.

SPRAYING & LIMEWASHING

The "Sapom" Horse-drawn Automatic Sprayer.

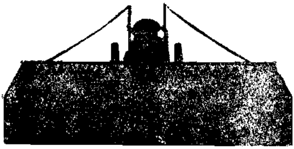
This powerful sprayer is the most economical for spraying large areas of Potatoes, Charlock and all Ground Crops.

It can be supplied with a horizontal lance fitted with 7, 14 or 24 nozzles as illustrated, and special models are made for spraying Sulphuric Acid for destroying weeds.

It can also be supplied with horizontal lance and 7 vertical lances, each fitted with double nozzle.

These lances can be adjusted to spray down on to, or up under the leaves of crops.

For Sulphuric Acid Spraying, other special machines are made. Prices from 58/- to £11 17 6.



"SAPOM" Horse-drawn Sprayer.

MADE IN THREE SIZES—44, 66 and 90 GALLONS.

Prices from £35 10 0 to £61 12 6:

All types of wet and dry sprayers made AND STOCKED, 1¾ pints to 130 gallons. Prices from 9/6 to £147.

Catalogue and full particulars from:

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24/26a Christopher St., London, E.C. 2.

To Contractors, Builders, and House Owners

WE ARE OFFERING

Cedar Doors, Sashes, Cornice, and Mouldings at the following prices:

SASHES, 2' 4" x 4' 6"	10s. per pair
" 2' 6" x 5'	11s. " "
" 2' 6" x 5' 6"	12s. " "
" 3' 6"	14s. " "
FRENCH WINDOWS, 2' 4" x 4' 6"	12s. " "
" " 2' 6" x 5'	14s. " "
" " 2' 6" x 5' 6"	15s. " "
" " 3' x 6'	16s. " "
CHAMBER DOORS, 3' x 7'	26s. each
" " 3' x 6' 6"	24s. "
" " 2' 6" x 6' 6"	22s. "
SQUARE HEAD GLASS DOORS, 3' x 7'	36s. per pair
" " " " 3' x 6' 6"	34s. " "
CIRCLE HEAD GLASS DOORS, 3' x 7'	40s. " "
" " " " 3' x 6' 6"	38s. " "
OTHER SIZES ARRANGED FOR, ALL 1⅛ FINISH.	
P. P. CORNICE, 3" 10s.,	12s. per 100
" " 4" 13s.,	14s. " "
CAVETTA MOULDING, 1½"	7s. " "
" " 2"	9s. " "
BACK MOULDING 2"	8s. " "
" " 1½"	6s. " "
" " 1"	5s. " "
P. P. HAND RAIL, 3' x 4'	45s. " "
P. P. FOOT RAIL, 2" x 4"	40s. " "

Apply at 24-26 East Street, Kingston. 'Phone 2794.

POULTRY NOTES.

POULTRY FARMER'S GOAL.

The poultry keeper's goal should at least be
An efficient poultry mash costing no more than 12/6d. per 100 lb.
An efficient scratch grain costing no more than 10/- per 100 lb.
A hen that will lay at least 12 dozen marketable eggs per year.
A determination to produce *still* a better hen.

Feed costs per dozen eggs would then work out as under:—

For 1 hen per year	40 lb. mash at 12/6 per 100 lb.	5/-
	35 lb. scratch at 10/- per 100 lb.	3/6
	Total feed costs for 12 doz. eggs	8/6

Feed cost per dozen eggs .. .. 8½d.

There would be some chance to stay in the business.

One of the resolves of the Jamaica Agricultural Society for 1935, is to search for efficient feeds at the prices named. We are sorry that we have up to now been unable to achieve it.

TO SELL.

Mahoods' Rhode Island Red Cockerels (imported) seven months old, also Australorp Cockerels of same age. All excellent birds. Mate up your pen with one of these for results.
Apply 4 Beechwood Avenue.

TO SELL.

Trio Pekins (Drake and two ducks), good breeders progeny of imported stock, also Pekin ducklings for table purpose.
Apply 4 Beechwood Avenue.

FOR THE BEST IN POULTRY
APPLY TO

DRUESDALE POULTRY FARM,

65 MOLYNES ROAD, HALFWAY TREE P.O.

S. C. White Leghorn. S. C. Rhode Island Red. S. C. Plymouth Rocks.
HATCHING EGGS. DAY OLD CHICKS. STARTED CHICKS.
MATED HENS. COCKERELS AND PULLETS ALL AGES.
Six years of selection behind all our stock.

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Poultry:

From 1 to 6 or 7 Weeks old

PIONEER CHICK MASH
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From 6 or 7 Weeks to 4½ or 5 Months

PIONEER GROWING MASH
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From 4½ or 5 Months on

For Egg Production

PIONEER LAYING MASH
PIONEER SENIOR SCRATCH

For Table Use Broilers and Capons

Feed same as above but use PIONEER BATTERY Chick Mash in place of Pioneer Chick Mash and PIONEER FATTENING MASH in place of Pioneer Growing Mash and Pioneer Laying Mash

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From 1 to 6 Weeks old

Pioneer TURKEY Starter

From 6 Weeks old on

Pioneer TURKEY Grower

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Pioneer PIGEON FOOD

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£250. In Prize Money.

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Chairman & Treasurer:
Major A. R. Moxsy.

Hon. Sec.:
R. O. Terrier, Esq.,
P. O. Box 33.
May Pen.

BRANCHES OF THE JAMAICA AGRICULTURAL SOCIETY, JANUARY, 1935.

DISTRICT No. 1—*Upper St. Andrew.*
Instructor A. P. Hanson, Stony Hill P.O.

Branches.	Parish.	Membership.
Brandon Hill	St. Andrew	35
Cambridge—Woodford	"	18
Lawrence Tavern	"	18
Manning's Hill	"	17
Mt. James	"	19
Padmore	"	18
Parks Road	"	16
Red Hills	"	20
Rock Hall	"	17
Stony Hill	"	30
St. Christopher's	"	11
Unity	"	.
Glengoffe	St. Catherine	20

DISTRICT No. 2—*Liguanea and Pt. Royal Mtns.*
Instructor H. C. Miller, Gordon Town P O.

Branches.	Parish.	Membership.
Barbican	St. Andrew	18
Bloxburgh	"	15
Content Gap	"	20
Dallas—Constitution Hill	"	22
Gordon Town	"	20
Hall's Delight	"	14
Liguanea	"	48
Mavis Bank	"	..
Westphalia	"	26
Tower Hill	"	22

DISTRICT No. 3—*St. Thomas in the East.*
Instructor U. A. McLaren, Yallahs P.O.

Branches.	Parish.	Membership.
Airy Castle	St. Thomas	18
Cedar Valley	"	21
Dalvey	"	15
Font Hill	"	16
Hagley Gap	"	31
Johnstown	"	14
Middleton	"	14
Nutts River	"	14
Rocky Point	"	13
Seaforth	"	31
Somerset	"	..
Trinity Ville	"	15
Wilmington	"	23
Yallahs	"	23

DISTRICT No. 4.—*Eastern Portland.*
Instructor G. R. Graham, Port Antonio.

Branches.	Parish.	Membership.
Ann's Delight	Portland	..
Bellevue	"	7
Comfort Castle	"	46
Constant Spring	"	..
Cooper's Hill	"	18
Drapers	"	18
East Fairy Hill	"	13
Fair Prospect	"	17
Fellowship	Portland	25
Hector's River	"	28
John's Hall	"	6
Kensington	"	.
Maidstone	"	35
Moore Town	"	17
Nonsuch	"	10
Rock Hall	"	27
Rural Hill	"	..
West Fairy Hill	"	32

DISTRICT No. 5—*Western Portland.*
Instructor D. A. Jones, Buff Bay P.O.

Branches.	Parish.	Membership.
Balcarres	Portland	21
Bangor Ridge	"	54
Belvedere	"	13
Birnamwood	"	31
Black Hill	"	.
Bybrook	"	18
Claverty Cottage	"	15
Craigmill	"	11
Fruitful Vale	"	35
Mt. Hermon	"	..
Portland Central	"	16
Regale	"	28
Skibo	"	..
St. Georges	"	18
Swift River	"	20
Tranquility	"	32

DISTRICT No. 6.—*Eastern St. Mary.*
Instructor C. D. V. Henderson, Highgate.

Branches.	Parish.	Membership.
Albany	St. Mary	22
Baxter's Mtn.	"	12
Belfield	"	20
Camberwell	"	16
Castleton	"	..
Clonmel	"	18
Enfield	"	..
Epsom	"	24
Flint River	"	7
Highgate	"	55
Job's Hill	"	7
Lewis Store	"	13
Long Road	"	15
Marlborough	"	22
Mt. Regale	"	8
Richmond	"	..
Rock River	"	16
St. Mary Central	"	19
Tryall Hill	"	11

DISTRICT No. 7—*Western St. Mary.*
Instructor L. A. Coke, Pembroke Hall P.O.

Branches.	Parish.	Membership.
Albion Mtn.	St. Mary	44
Carron Hall	"	31
Hampstead	"	14
Jackson	"	12
Lucky Hill	"	40
Mt. Angus	"	30

Oxford	St. Mary	14
Preston	"	14
Three Hills	"	21
Wallingford	"	16
Wood Park	"	24
Guy's Hill	St. Ann	18
Benbow—Bonnett	St. Catherine	..
Phillipsburgh	"	30
Springfield	"	28
Turnberry	St. Ann	47

DISTRICT No. 8—*Eastern St. Ann.*

Instructor C. V. Atkinson, Bamboo P.O.

Branches.	Parish.	Membership.
Bamboo	St. Ann	37
Beecher Town	"	18
Brittonville	"	21
Hiattsfield	"	13
Jeffreyville	"	17
Pedro	"	24
Ocho Rios	"	17

DISTRICT No. 9—*Western St. Ann.*

Instructor C. M. A. Robotham, Brown's Tn.

Branches.	Parish.	Membership.
Aboukir	St. Ann	41
Alexandria	"	23
Brown's Town	"	..
Gibraltar	"	31
Keith	"	15
Lime Tree Garden	"	17
Upper Retirement	"	34
Yorke Valley	"	22
Duanvale	Trelawny	32
Duncans	"	12
Jackson Town	"	14
Sawyers	"	14
Stewart Town	"	17
Waldensia	"	22
Alva	St. Ann	..
Cave River	Clarendon	16

DISTRICT No. 10—*Trelawny.*

Instructor M. N. Thompson, Albert Town.

Branches.	Parish.	Membership.
Alps	Trelawny	7
Bunkers Hill	"	27
Deeside	"	26
Lowe River	"	9
Spring Garden—Rock Spring	"	27
Trelawny Upper	"	16
Troy	"	15
Ulster Spring	"	17
Wait-a-Bit	"	10
Wakefield	"	28
Warsop	"	11
Wilson's Run	"	..
Bohemia	St. Ann	23
Aberdeen	St. Elizabeth	13
Comfort Hall	Manchester	34
Retirement	St. Elizabeth	25

DISTRICT No. 11—*St. James.*

Instructor W. D. Marr, Anchovy P.O.

Branches.	Parish.	Membership.
Bcikersteth	St. James	24
Catadupe	St. James	12
Hopeton	"	11
Maldon	"	26
Mt. Horeb	"	21
N. W. St. James	"	..
Rochampton	"	28
Salt Spring	"	25
Somerton	"	21
Springfield	"	14
Bethel Town	Westmoreland	17
Darliston	"	19
Holly Hill	"	19
Lamb's River	"	7
N.E. Westmoreland	"	..

DISTRICT No. 12—*Hanover.*

Instructor C. C. Hastings, Great Valley.

Branches.	Parish.	Membership.
Cascade	Hanover	13
Green Island	"	26
Hanover Windward	"	14
Hopewell	"	25
Jericho	"	26
Mt. Hannah-Maryland	"	23
N. W. Hanover	"	16
Pondside	"	7
Sandy Bay	"	..
Lethe	St. James	37

DISTRICT No. 13—*Westmoreland.*

Instructor F. W Kelly, Bluefields.

Branches.	Parish.	Membership.
Blauwearie	Westmoreland	14
Cairn Curran	"	12
Cornwall Mtn.	"	..
Georges Plain	"	16
Grange Hill	"	59
Haddo	"	11
Little London	"	42
Mt. Airy	"	12
Mt. Grace	"	..
Petersfield	"	20
Sheffield	"	18
Williamsfield	"	..

DISTRICT No. 14—*N. W. St. Elizabeth.*

Insptructor G. W. Wray, Newmarket.

Branches.	Parish.	Membership.
Brighton	St. Elizabeth	11
Brompton	"	32
Carrisbrook-White Hill	"	..
Kilmarnock	"	25
Lacovia	"	22
Merrywood	"	..
Middle Quarters	"	..
Mocho-Newmarket	"	21
Pisgah	"	10
Springfield	"	28
Mulgrave	"	deft.
Beeston Spring	Westmoreland	21
*King's—Whitehouse	"	31
Lennox-Bigwood	"	17
New Road	"	22

District No. 15—*Southern St. Elizabeth.*
Instructor H. W. Lynch, Nain P.O.

Branches.	Parish.	Membership.
Barbary Hall	St. Elizabeth	14
Bull Savanna	"	52
Malvern	"	27
Mountainside	"	..
Nain	"	30
Pedro Plains	"	7
Pedro Plains Upper	"	14
Pepper	"	11
Rose Hall	"	85
Santa Cruz	"	13
W. St. Elizabeth	"	9
Southfield	"	deft.
Mulgrave	"	..

District No. 16—*Lower Manchester.*
Instructor H. A. Darby, Mandeville.

Branches.	Parish.	Membership.
Bellefield	Manchester	16
Broadleaf	"	12
Ebenezer	"	20
Fairfield	"	18
Maidstone	"	13
Mile Gully	"	25
New Green	"	39
Old England	"	16
Patricktown	"	9
Porus	"	..
Pratville	"	7
Royal Flat	"	17
Snowdon	"	25
Victoria Town	"	12
New Broughton	"	deft.
New Hall	"	"
Zion Hill	"	"

District No. 17—*Upper Manchester.*
Instructor J. A. Graham, Christiana.

Branches.	Parish.	Membership.
Christiana	Manchester	30
Craighead	"	..
Cumberland	"	18
Devon Potato Growers	"	15
Mizpah	"	35
Pike	"	25
Waterloo	"	19
Frankfield	Clarendon	28
Grantham	"	19
James Hill	"	14
John's Hall	"	27
Leicesterfield	"	21
Moravia	"	27
Nairn Castle	"	11
Orange Hill	"	15
Spaldings	"	25
Tweedside	"	25

District No. 18—*Upper Clarendon.*
Instructor W. L. Shirley, Chapelton.

Branches.	Parish.	Membership.
Beckford Kraal	Clarendon	10
Blackwoods	"	22
Brandon Hill	Clarendon	22
Crofts Hill	"	22
Crooked River	"	38
Good Hope—Kellits	"	..
Kellits—Chapelton	"	32
Mahoe Hill	"	32
Mitchell's Hill	"	22
Mt. Carmel	"	10
Mt. Providence	"	34
Prospect	"	20
Rock River	"	26
Smithville	"	21
Staceyville	"	..
Thompson Town	"	22
Wilbury—Lemon Hall	"	6
Mainridge	"	20
Alston	"	45

District No. 19—*Lower Clarendon.*
Instructor A. L. Virtue, Crooked River.

Branches.	Parish.	Membership.
Mid-Clarendon	Clarendon	18
Mocho	"	19
Pleasant Valley	"	42
Richmond Park	"	29
Toll Gate	"	38
Rock	"	34
Victoria	"	19

District No. 20—*St. Catherine.*
Instructor O. P. Martin, Brown's Hall.

Branches.	Parish.	Membership.
Bartons	St. Catherine	30
Bellas Gate	"	205
Brown's Hall	"	24
Content Bois	"	40
Carden Hill	"	40
Ginger Ridge	"	83
Kentish	"	27
Macca Tree	"	32
Marlie Hill	"	20
Paul Mountain	"	24
St. John's Upper	"	27
St. John's Lower	"	11
Top Hill	"	14
Watermount	"	14
Tydixon	"	28

District No. 21—*St. Thomas-Ye-Vale.*
Instructor C. S. Byles, Linstead P.O.

Branches.	Parish.	Membership.
Bog Walk Central	St. Catherine	24
Buxton Town	"	20
Ewarton	"	17
Hampshire	"	22
Keith Hall	"	11
Lucky Valley	"	41
Mt. Industry	"	11
O'Meally	"	38
Princessfield	"	..
Sligoville	"	24
Torja	"	22
Victoria	"	34
Waterloo	"	21

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MAIN ROAD DRAINS AND HOLDINGS.

We received enquiries from a Branch Society as to the rights of the Public Works Department in regard to main road drains in private properties, and considered it useful for the information of property owners to publish below the relevant sections of the Main Roads Consolidation Law, Law No. 33 of 1931, governing the question.

A Law to Consolidate the Laws relating to Main Roads.
(11th February, 1932.)

1—In the construction of this Law and of the Lands Clauses Law 1872, as hereinafter incorporated herewith, except where the context requires a different construction, the expression—"Road" includes the roadway, the water tables, the bridges and fordings, on the line of the road, and the land on each side of the roadway and water tables up to the boundary of the road;

The words "cultivated" and "uncultivated" and "ruinate" in connection with the word "land" shall be held to apply to the actual state or condition of each particular portion of any land acquired or entered upon under this Law, without reference to any other portion of the same land whether separated or not therefrom by any boundary or fence;

7—The boundary of any main road shall be the fence running along it on either side and where there is no fence, the boundary shall be a line at all points twenty-five feet from the centre of the roadway measuring in a direction at right angles to the road.

THE TAKING OF LANDS.

17—The Director of Public Works may purchase and take lands for the undertaking under the provisions of the Lands Clauses Law 1872, subject to the following conditions:—

The lands to be taken shall be for one or more of the following purposes:—

(a) The laying out of a main road.
(b) The altering of the course of a main road.
(c) The widening of a main road.
(d) The obtaining therefrom of materials for the construction or maintenance of a main road.
(e) The obtaining access to lands taken for the purpose specified under head (d).
(f) The depositing thereon of materials for the construction or maintenance of a main road.
(g) The depositing thereon of earth or refuse removed from a main road.

18—The Director of Public Works, or any person authorised by him, may do any or all of the following things in the execution of the works:—

(a) He may, when he deems it necessary, in the course of any works upon a main road necessitating the temporary blocking up of such road or any portion thereof, or when any part of a main road is unfit for traffic, make a temporary road over lands adjoining the same, to be used as a public road while the main road is being repaired, widened or altered.
(b) He may when he deems it necessary for the preservation of a main road, alter or regulate the course of any river, stream or water course not being navigable.
(c) He may cut drains on any lands adjoining a main road, for the purpose of intercepting water that would otherwise flow on to such main road, or of carrying off water from such main road.
(d) He may make deposits of the spoil or surplus materials from any landslips or excavation, or any refuse from any main road.
(e) He may, subject to the provision in the next section, open and work quarries and make excavations for the purpose of obtaining materials for the construction or repair of any road or part of a road, and also gather, collect and carry away stones or any materials from off the surface of lands without making excavations.

19—(1) *For any one or more of the purposes specified in either of the two next preceding* sections, the Director of Public Works, or any person authorised by an order in writing signed by him, may at any time without previous notice, payment, tender or deposit, enter upon any lands not being more than one mile distant in a straight line from the boundary or fence of a main road, and not being land on which is any house, yard or garden, or provision ground attached to a house and not being a park, avenue, or ground ornamentally planted, and occupy and use the said lands so long as may be necessary for the said purpose or purposes, or any works connected therewith without purchasing or taking such lands: Provided that in case of urgent necessity arising, the Director of Public Works may without any previous notice, payment, tender or deposit, enter upon and temporarily occupy any such last mentioned house, yard, garden, ground, park or avenue, in the exercise of the powers conferred by Section 18, sub-section (a) for the purpose of making a road to be used as a public road as in the said section mentioned:

Provided also that, excepting in such a case or urgent necessity under Sub-section (a) of Section 18 as is mentioned in the foregoing proviso, the Director of Public Works, or any person authorised as hereinbefore provided, shall not enter upon any enclosed or cultivated land, or open or work any quarry or make any excavation on any such land, except after at least fifteen days' notice in writing to the occupier of such land: Provided that when the Director of Public Works or other persons as aforesaid has given such notice, and entered as aforesaid, it shall be lawful for him, without any fresh notice, to continue to enter upon such land or to work such quarry, or make excavations, until he shall have ceased to do so for the period of seven days or upwards, after which it shall be necessary to give a fresh notice before any fresh entry.

(2) In the exercise of the powers in the preceding Sub-section mentioned it shall be lawful for the Director of Public Works, or any person authorised by an order in writing signed by him, to make such openings in any fence then existing, or thereafter erected, as may be necessary for the purpose or purposes aforesaid, and also to erect a fence or fences to separate any portion of the land so entered upon from the remainder; and it shall also be lawful for the Director of Public Works, or any person authorised by an order in writing signed by him, to deposit and to manufacture and work upon such lands materials of every kind used in the works, and for the purposes aforesaid to erect thereupon workshops stores, sheds, and other building: Provided always that nothing in this Law contained shall exempt the Director of Public Works from an action for nuisance or other injury (if any) done, in the exercise of the powers herein-before given, to the lands or habitations of any party other than the party whose lands shall be so taken or used for any of the purposes aforesaid: Provided also that no stone or slate quarry, brickfield or other like place, which is then being worked or used for getting materials therefrom for the purpose of selling or disposing of the same, shall be taken or used by the Director of Public Works for the purpose specified in Sub-section (e) of Section 18.

3. The Director of Public Works, shall within a reasonable time, either purchase and take any such land entered on and occupied as aforesaid, or shall make compensation to the owners and occupiers of and all other parties interested in any lands, rivers, streams or watercourses, for all damage sustained by them by reason of the temporary occupation of the same in exercise of the power given by this section; so however that notice in writing of any claim for compensation as aforesaid be given to the Director of Public Works within six months after the doing of the thing in respect of which compensation is claimed.

4. Such compensation shall be settled either by agreement or in the manner prescribed in the Lands Clauses Law, 1872. Provided that where lands so entered upon and occupied as aforesaid are Savanna, ruinate or waste land, or uncultivated land, or the bed of a river or gully nothing shall be paid by way of compensation, or as the price of any materials taken therefrom; and no compensation shall be paid for damage occasioned by or in the process of the removal of any encroachment on the main road, unless caused by the wilful neglect or default of the Director of Public Works, or a person acting under his authority.

ENCROACHMENTS.

20—The following shall be deemed to be encroachments on a main road:—

(g) Any stone, earth, timber or other substance, thrown into or placed in any river, or stream or watercourse, which shall cause or tend to cause the water to flow over or otherwise to injure the road.

(h) Any stone, earth, timber or other substance, thrown into or placed in any drain or watercourse, which shall impede the drainage of water from the road.

21—(1) Whenever there shall exist any encroachment on a main road, the owner or occupier of the land, fence or construction, from which such encroachment proceeds, or the owner of the thing constituting the encroachment shall, after receiving a notice thereof in writing signed by the Director of Public Works, forthwith remove or abate the same at his own cost.

(2) The notice shall specify the nature of the encroachment and state a reasonable time within which it must be removed.

(3) After the expiration of the time specified in any such notice or without any such delay if the encroachment endangers or impedes or threatens, or is likely to endanger or impede, the traffic on the road or the drainage of the road, the Director of Public Works may remove the encroachment, or cause it to be removed, in such manner as he may think fit.

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JAMAICA AGRICULTURAL SOCIETY.

BRANCH NOTES.

ST. ELIZABETH: Kilmarnock.—Meeting, 11th December. There were 13 members present and Instructor Wray. Mr. Jas. Hart, 1st Vice-President presided. Among the matters dealt with, was the need of the district for a Maternity Nurse. The Secretary was instructed to write again, and press the matter. Re the Post Office, there was some discussion on the matter. Instructor Wray, however, explained the matter to the satisfaction of the house. He then gave a report of the last Convention at Lacovia as no delegate attended from this Branch. He also gave a very interesting address touching closely on the training of children. After discussion of other matters the meeting closed with the singing of National Anthem.

New Market P.O. J. E. MONTEITH.
Secretary.

ST. JAMES: Bickersteth.—Meeting, 6th December. Present: The President, Instructor Marr and 16 members. Correspondence was dealt with including a communication from Mr. A. B. Lowe of Adelphi, stating that Roehampton Property is to be obtained for Land Settlement at an early date. A paper was read by Mr. Eric Wilson on "Tomato Growing." The Instructor followed this by further remarks on the subject, giving hints as to the preparation and sowing of seeds, the seed box, transplanting, spraying of plants and their general care and handling. The Instructor also informed the meeting of the new regulations re bee-keeping. An agenda for the next meeting was then fixed and included paper on Vegetable Growing by Mr. E. Wilson (to be continued) and discussion re formation of a Juvenile Branch. The National Anthem was then sung and the meeting terminated.

Montpelier P.O. LEO. A. SPENCE,
Secretary.

Mt. Horeb.—Meeting, November 24. Present: President, Instructor Marr and eleven members. A welcome was extended to Instructor Marr who had just returned from a months vacation. Re the Jericho road. it was brought to the attention of the meeting that residents in that area are prepared to give a certain amount of free labour if the Parochial Board will do the rest. A committee was formed to present the matter to the Parochial Board. Notices of motion were given for the next meeting: That (1) Juvenile Branch be formed. (2) Ways and means be devised to raise funds to help the Society. (3) Growth of white yams be encouraged. The singing of the National Anthem brought the meeting to a close.

ST. CATHERINE: Brown's Hall.—Meeting, 4th December. Rev. J. F. Hart presided. The attendance was fairly good and included Mr. Carrington of the Department of Agriculture, and Inspector Rivett. The following business was transacted:—(1) Authorised Person reported all correct. (2) Delegate to Half-yearly meeting—Rev. Hart was asked to represent the Branch. (3) Delegates report of the Half-yearly meeting of the Associated Branches was submitted and Mrs. Hart the delegate was warmly thanked. (6) Mr. Carrington's address the chief feature of the meeting. was on citrus cultivation. Not only were members deeply interested and greatly profitted by this instructive and illuminative address but many were fired with a desire to start the cultivation of even a small citrus grove. At the close of the meeting Mr. Carrington gave a demonstration of the correct method of planting seedlings. A hearty vote of thanks was accorded him. Inspector Rivett moved a resolution with regard to the use of fertilizers which was seconded and heartily supported. The meeting was brought to a close by the singing of the National Anthem.

Brown's Hall P.O. M. HART,
Reporting Secretary.

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Bellas Gate.—Meeting, 10th December. Present: Messrs. E. A. McNeil, Chairman, of Parochial Board of St. Catherine; Dr. J. M. Morrison, O. P. Martin, Instructor, F. N. Barrett, President, and many other members, juveniles and visitors. The President made some encouraging remarks and welcomed the house, especially the distinguished visitors. Four Authorised Persons were present; three reported all correct, one reported a call to make an arrest, but the matter was settled. Delegates report was given by Mr. M. Golding of the meeting of the St. Catherine Branches Associated and Mr. D. Shaw was elected as delegate to represent the Branch at the General Half-yearly Meeting. Addresses were delivered by Messrs. E. A. McNeil, Dr. J. M. Morrison and O. P. Martin. Dr. Morrison gave a very interesting and instructive lecture on the teeth. Mr. McNeil spoke on various points, such as agriculture, water supply of the district, Parochial Dispensary, vegetables, road, etc., and he promised to sponsor a competion in corn growing. Mr. Martin's address was on pruning of coffee. These addresses were much appreciated, and votes of thanks were accorded the lecturers. The roll was called, and two members were added to the roll, making the membership 210. The meeting closed with the singing of the National Anthem.

Bellas Gate P.O A. A. McCurdy, Secretary.

Buxton Town.—Meeting, 19th December. Present: Mr. N. Mighty, President; Mr. C. S. Byles, Instructor, 14 other members and a good number of visitors who promised to join the Branch in January. Secretary was asked to forward to the Parent Society resolutions re road to Crown Lands and Polling Station at Wakefield. Report of Authorised Persons was taken. The Instructor spoke on sugar cane. Canes immune from borers were shown to the audience. and were recommended for planting. Secretary was thanked for his services for the past year. A discussion led off by Mr. Mighty on means of co-operative savings in connection with the Branch proved interesting. The matter was however deferred till next meeting. The National Anthem closed the meeting.

A. B. Walters, Secretary.

Tydixon.—Meeting 11th December. All the officers and members and the Committee of the Branch were present; also Instructors Mr. O. P. Martin and Mr. W. L. Shirley. Over forty persons were present; six of the 14 visitors becoming members of the Branch eventually. After the usual formalities were gone through, reports on the prospective road into Tydixon, water supply and a prospective school, were presented. Two Authorized Persons were elected to serve the Branch while the President, Rev. H H. Simpson was elected delegate to represent the Branch at the Half-Yearly General Meeting. Both Instructors gave very helpful talks on various agricultural matters, after which the meeting adjourned to allow for the field demonstration.

Moneague P.O. J. C. Johnstone, Secretary.

Victoria.—Meeting 13th December. Rev. J. M. Walters presided. The members decided to defer the procuring of tools until the Branch was financially stronger. Mr. Augustus Williams was elected to be an Authorised Person. After the working committee gave their report, the Revd. Beverley addressed the meeting and advised the members against superstition and human parasites. Mr. E. A. McNeil, J.P., and Chairman of the Parochial Board came in at this juncture and after being welcomed gave a very interesting and practical address. He stressed the value of self help. He was heartily thanked. Master S. Henry recited "Hoe out your row." After correspondience was dealt with Instructor Byles gave a very interesting address on the marketing of crops. Mention was made of a proposed excursion to Manchester and St. Elizabeth. After minor matters were dealt with the meeting closed with the singing of the National Anthem.

Brandon Hill.—Meeting 17.12.34. There were present Mr. J. N. Lewis, 1st Vice-President; A. L. Virtue, Assistant Instructor and 16 other members also visitors. As arising from the minutes, matters relating to the Ginger Competition, sale of Christmas Seals, Water Supply and Registration of Apiaries, were discussed. Four Authorised Persons present reported. Instructor Virtue spoke on the reaping and curing of coffee, pointing out the best methods in which these should be carried out so as to ensure good quality and good prices. He advised the members to obtain a pulper for the Branch. He also asked for strong support of the Show. A hearty vote of thanks was accorded him. A paper on the Growing of Potatoes was given by Mr. Small. He was thanked. After the Roll Call, minor matters were dealt with and the meeting terminated.

(Miss) E. A. Graham, Assistant Secretary.

Mt. Providence.—Meeting 11th December, with 10 members and Mr. A. L. Virtue, Assistant Instructor, present. Mr. D. Harrisson, 1st Vice-President presided. The Secretary reported that of five delegates appointed to go to the meeting of the Clarendon Branch Associated, only two were able to attend. Mr. P. D. Gilfillian was appointed delegate to the Half-Yearly General Meeting. Several matters of importance were dealt with. The Instructor gave a very warm address on the reaping of citrus, which was listened to with great interest. A vote of thanks was accorded him. The meeting adjourned with the singing of the National Anthem.

P. D. GILFILLIAN,
Acting Secretary.

MANCHESTER: Comfort Hall.—Meeting 14th December. There were present: the President, the new Instructor Mr. M. N. Thompson and 19 members and 3 visitors. The President extend a hearty welcome to the Instructor. Mr. Thompson replied suitably. Mr. F. C. Kerrins was appointed delegate along with the President to the Half-Yearly General Meeting. A committee were appointed to deal with resolution re citrus and coffee planting to be sent to the Half-Yearly Meeting. The matter of cane plants was also discussed, it was agreed to suspend cane planting until near Spring time. Corporal Myers, the officer in charge of the Cottage Police Station gave a very interesting and useful lecture to the Authorised persons. A hearty vote of thanks was extended to him. The Instructor gave a very interesting lecture re coffee planting and upkeep, and promised to give his help to the Branch and entire community in any agricultural line The President asked everyone to give the Instructor co-operation and support. Three new members were enrolled. The meeting closed with the singing of the National Anthem

W. A. WHITE,
Secretary.

New Green.—Meeting 6th December. There were present Mr. E. M. Clerk, President, the Hon. C. A. Reid, M.L.C.; Instructor H. A. Darby, Mr. Holon Heron, M.P.B., the Secretary and over one hundred members and visitors. As arising out of the minutes the following were dealt with:—(a) A seedless marsh plant to be presented to Mr. D. C. F. Pengelley, a former President. (b) A central road from the interior of New Green. The President in calling upon the Hon. Member to address the meeting paid very warm *tribute to Mr. Reid's work both in the parish and in the Legislative Council.* The Hon. Member in a lengthy and very interesting address dealt with the following:—The dignity of labour, agriculture—the mainstay of Jamaica, diversities of industry, cement factory, medical service, primogeniture law, and taxation. He paid very warm tribute to those who try to improve their holdings and by so doing encourage others. The thanks of the meeting was conveyed to the Hon. Member by the President, who spoke of the careless way oranges were being gathered for market. Mr. Holon Heron spoke of intensive cultivation and urged the members to attend the Branch meetings regularly so as to derive the maximum amount of benefit from the Instructor, especially in these days when virgin lands were things of the past. A very profitable and encouraging meeting was brought to a close by the singing of the National Anthem.

Mandeville P.O. E. A. GRANT,
Secretary.

WESTMORELAND: Haddo.—Meeting December 3rd. Present: I. T. Leslie President; Instructor F. W. Kelly, ten members and twelve visitors. During the day, the Instructor gave demonstrations at Mr. I. S. Leslie's and R. C. Stewart's holdings and at the school garden. At the meeting he gave a timely address on the cultivation of citrus and was listened to with the greatest attention. He was thanked by the House, and the meeting closed with the singing of the National Anthem.

A. M. ROBERTS,
Secretary.

TRELAWNY: Bunker's Hill.—Meeting December 6. Present: Mr. M. N. Thompson, Instructor; Mr. E. B. Pickering, President, 11 other members and many visitors. Correspondence re foul brood, registration of hives, and Jamaica orange were discussed. The Instructor gave an interesting talk on citrus, emphasizing the demand for this product and recommended the culture of the Valencia and Parson Brown oranges, and the Marsh grape fruit. It was agreed to send a delegate to the Half-Yearly General Meeting. A committee was formed to draft resolution. Two Authorised Persons reported "All correct." The National Anthem was sung and the meeting adjourned.

Wakefield P.O. P. H. BROWN,
Secretary.

Duncans.—Meeting December 18. Present were: Mr. J. Stockhausen, President; Instructor Robotham, and fourteen other members. During the course of the day the

Instructor performed demonstrations at Spicy Hill and at the meeting he gave a very interesting lecture on the *"Care of Donkeys,"* commencing from the handling of the animal to the administering of medicines. He emphasized the absolute necessity of shelter, proper watering and feeding; and the inevitable dangers which will be the result of negligence. He also recommended some patent medicines and gave recipes for making embrocations, etc. The next speaker was Mr. J. Falconer, who spoke on the value of a ¼ acre of land if cultivated properly. He gave illustrations how tomato planted on one square can give £7 in four months, and a square of cabbage netted £11 16s., and at the same time grape fruits were being planted on these lands. Rev. T. Sherlock expressed his appreciation of the addresses. Thirteen members were enrolled, making a total of thirty members. The President in his closing remarks said that this country is an agricultural country and therefore we must encourage agriculture. At this juncture the meeting was brought to a close by the singing of the National Anthem.

Clark's Town P.O. L. V. SLOLEY,
Reporting Secretary.

Spring Garden, Rock Spring.—Meeting 13.12.34. Present: Messrs. W. A. McDonald, President; M. N. Thompson, Instructor, and a good many other members and visitors. Addresses were given by the President, Instructor and Mr. J. Codling. The Instructor urged the friends to become members of the Society, and assured them of the advantages a member had. Three new members joined. Mr. G. Clarke was appointed delegate to attend the Half-Yearly General Meeting. Authorised person reported, "All correct." A business committee of 9 and a visiting committee of 3 persons were formed. Miss L. Edwards was appointed Assistant Secretary. Minor matters were dealt with and a successful meeting adjourned with the singing of the National Anthem.

L. C. COY,
Secretary.

Wait-a-Bit.—Meeting December 12. Present: Mr. V. C. Robotham, President; Mr. M. N. Thompson, Instructor; 9 members and many visitors. Owing to bad weather, the Instructor was unable to visit fields in the day. Mr. V. C. Robotham was appointed delegate to the Half-Yearly General Meeting. A motion was brought up by the President, that steps be taken and co-operation given by the members to put down small banana buyers in this district as a means of preventing or lessening praedial larceny. Efforts are being made to enlarge the Branch and 11 new members were enrolled. The meeting terminated with the singing of the National Anthem.

(MISS) I. L. ROGERS,
Secretary.

Wakefield.—Meeting held December 4. Present were: Mr. C. R. Browne, 1st Vice-President, presiding, the Secretary of the Deeside Branch, E. A. Morle, Mr. H. P. Lucas, the Agricultural Instructor, Mr. M. N. Thompson, several members and visitors, also a large attendance of school children. The Instructor carried on demonstrations from 11.30 a.m. to 5 p.m. on coffee and citrus at Mr. E. Harris' and Mrs. A. Gardener's holdings. One new member was enrolled. A communication from Messrs. Delgado Bros. re a meeting was read and noted. Mr. H. P. Lucas was appointed delegate to the Half-Yearly General Meeting. The Instructor lectured on citrus industry. He advised cultivators to purchase grape fruit plants from Hope. He touched on nurseries and methods of planting. The Secretary read from the September Journal the "Editorial Comments." The Chairman gave a short address and the meeting adjourned.

E. S. BLISS,
Secretary.

ST. THOMAS: Hagley Gap.—Meeting 21.12.34. Mr. Astley Henderson presided. Mrs. Astley Henderson one of our delegates to the Half-Yearly Meeting of the Associated Branches gave a concise account of the meeting and was accorded a hearty vote of thanks. Mr. C. A. Campbell was appointed delegate to the Half-Yearly General Meeting. The following rules of the Mutual Working Scheme of the Branch were submitted. 1. All members of this Branch Society are entitled to the benefits of the Scheme. 2. There must be a working committe of one or more from every well defined district of the Branch. The President and Secretary to be ex-Officio members. 3. Working days of the Scheme must be fixed in advance at a regular meeting. 4. Names of members willing to join in the working plan at a member's field are to be taken at a regular meeting. 5. Any member who finds that he cannot work in the working squad though appointed, through circumstances over which he has no control, is to send a notice to the committee. 6. Members who are appointed and absent themselves from the working squad without notice are open to fine or censure. 7. If there be any contention in the working of the Scheme, the matter must be reported to the committee or to the regular meeting for discussion. 8. Records of all transaction must be kept. 9. Records of the work must be given in at the regular meetings following the dates of the working day or days.

10 Members must take their own lunch when going to work, unless the owner of the field will take the responsibility of finding lunch. 11. Members working must find their own tools. 12. Rules and by laws can be added or amended from time to time. A committee of Mutual Working Scheme was appointed. Regarding the death of Mr. C. L. D. Morgan the meeting instructed the Secretary to send Mrs. Morgan a letter of condolence. Members of the Penlyne district expressed the desire of a visit from representatives of the Parochial Board. Minor matters were dealt with, and the meeting came to an end by the singing of the National Anthem.

J. B. Heywood,
Secretary.

Wilmington.—Meeting 19.12.56. Present: Instructor U. A. McLaren, Messrs. C. M. Hart, President; and seven others. Mention was made of the death of Mr. C. L. D. Morgan, who for years was President of the Associated Branches of St. Thomas. Authorised Persons were assigned to work in various sections of the district The Instructor, during his address exhorted the members to resolve to do more in 1935 than they did in 1934; he encouraged the planting of coconuts and citrus, and the rearing of small stock. He wished to see more young men associating themselves with the Society. A vote of thanks was moved by the President and seconded by the Secretary. It was decided to invite the Hon. Member for the parish to the next meeting fixed for the 6th January.

W. Aug. Thompson,
Secretary.

ST. MARY: Albany.—Meeting 21st November. Present: Mr. S. N. Young, 1st. Vice-President, 6 members also Instructor C. D. V. Henderson. The prospect for soya beans was explained by the Instructor. The Instructor lectured on banana culture and its prospects, giving minute details on the subject. The Instructor was thanked for his lecture. The meeting was brought to a close by the singing of the National Anthem.

N. P. Clarke,
Secretary.

Baxter's Mtn.—Meeting 18.12.34. Owing to rains no meeting took place since September 18th. The Secretary presided.Instructor Henderson explained the postponement of the Highgate Show. The Secretary informed members that the petition re the fording had been received by Hon. H. E. Vernon to be attended to. Catch crops was discussed by the Instructor, showing that peas and beans are best for their double benefit, viz.: giving food and supplying nitrogen to aid the growth and development of plants. A discussion on canes was arranged for next meeting. Instructor Henderson asked members to look out for best kind of sweet orange and forward samples to him or the Parent Society for examination. He carried out demonstration on Smiley's holding in hill side trenching, and urged members to visit the holding and see same. During meeting he illustrated by Black Board drawings, the utility of same and requested Mr. K. Gooden to be ready for a demonstration on his holding on next visit. Meeting adjourned.

Annotto Bay P.O. R. J. Lawson Ricketts,
Secretary.

Hampstead.—Meeting December 17. Present: Messrs. T. D. H. Willis, 2nd Vice-President, presiding; eight other members, and one visitor. The Bank's Presentation Fund was discussed. Mr. Davis was appointed delegate to the Half-Yearly General Meeting. Authorised Person, Lewis, reported one arrest with conviction, and one attempted arrest. One new member was received. Delegates' report of Conference at Highgate was read by the Secretary. A hearty vote of thanks was conveyed to him. The President gave a brief and stirring address. Meeting adjourned with the singing of the King.

Hampstead P.O. H. G. A. W. Davis,
Reporting Secretary.

Rock River.—Meeting 28th November. Present: Mr. A. V. Ross, presiding, 8 members, and the Instructor Mr. Henderson. Mr. A. V. Ross was appointed delegate to the Half-Yearly General Meeting. The Instructor gave a splendid lecture on co-operation. He emphasized its usefulness. He mentioned co-operation in the fields, co-operation in the rearing of animals, and showed that co-operation is the key note of success throughout the world. The Instructor was accorded a vote of thanks. Minor matters were dealt with, and the meeting terminated with the singing of the National Anthem.

Mt. Regale P.O. J. A. Bowen,
Secretary.

Epsom.—A letter from Mr. Fred A. Edwards, Secretary of the Branch, states that owing to heavy rains, the December meeting could not be held.

PORTLAND: Craigmill.—Meeting 4th December. Present: Messrs. J. T. Lowe, President; Instructor D. A. Jones, and nine other members. The Secretary was elected to represent the Branch at the coming Half-Yearly General Meeting. A meeting of the Managing Committee was arranged. One Authorised Person present had nothing to report. The Instructor informed the house that the variety of citrus recommended by the Government was being planted in various localities, and urged active steps in the matter by those who intend to get seedlings. He also gave information regarding Foul Brood in certain localities, and the order of the Government to have all apiaries registered. He urged improved method of cultivation, and showed the necessity of proper tillage, trenching, and manuring. A few minor matters were attended to and the meeting terminated with the singing of the National Anthem.

Buff Bay P.O. (REV.) T. LAWRENCE,
Secretary.

Moore Town.—Meeting 4th December. Owing to the inclemency of the weather the attendance was very small. All important business was deferred to the next meeting. Several letters were read. For the Half-Yearly Meeting in Kingston, Mr. Anglin was elected delegate. The Instructor, Mr. Graham, addressed the meeting, stressing the point that the smallness of membership of the Jamaica Agricultural Society prevents the acquiring of many good things He hoped in the coming year to make the membership of the Portland Branches second to none. One new member was enrolled. Meeting closed by the singing of the National Anthem.

R. SIMEON ANGLIN,
Secretary.

Tranquillity.—Meeting 19th December. Present: M. C. Williams Esq., President; Mr. W. Harper Watson, J.P., M.P.B., Mr. D. A. Jones, Agricultural Instructor, nineteen other members and thirty-four visitors. A warm welcome was extended to all by the President. Four Authorised Persons reported "all correct." Implements were exhibited in proper order. One new member was enrolled, and six other gentlemen submitted their names with the view of becoming members. Mr. W. H. Watson gave a very enteresting and instructive address on, "The Pig Industry." The subject was ably dealt with by the speaker, and well received by the audience. Instructor Jones also gave a splendid address dealing with the possibility of developing a ham, pork and and bacon, etc., Industry in this Island. Both speakers urged the necessity of Branch Societies increasing their membership. Mr. R. C. Watson, Secretary of the Skibo Branch was present. Minor matters were discussed. The Roll was called, and the National Anthem brought a splendid meeting to its close.

Balcarres P.O. N. W. McCLERY,
Secretary.

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Other Reports Received.

Branch.	Date of Meeting.	Attendance.	Business.	Secretary.
Portland.				
Balcarres ..	27.12.34	..	Authorised Person: Election of delegate to Half-Yearly General Meeting: Kent Bridge: Road.	Ada V. Nesbitt
Tranquility ..	19.9.34	31	Election of delegate to Parish Association Meeting. Addresses by Instructor Jones and Mr. T. Hammond.	N. W. McClery
Do. ..	17.10.34	27	Pig Census: Address by Instructor Jones.	do.
Do. ..	21.11.34	15	Addresses by Messrs. M. Williams and N. W. McClery.	do.
St. Elizabeth.				
Brompton ..	29.11.34	.	Juvenile Branch: Report of Parish Association Meeting: Peanuts: Address by Instructor Wray.	E. A. Watson
Clarendon.				
Brandon Hill ..	26.11.34	27	Citrus: Report of Parish Association Meeting: Address by Plant Disease Inspector, Mr. N. A. Wainwright.	(Miss) E. A. Graham
Richmond Park	14.12.34	..	Resolutions: Presentation to Mr. S. A. Weathers, Authorised Persons: Coffee: Ginger Competition, Foul Brood: Address by Instructor A. L. Virtue.	L. V. Robinson
Trelawny.				
Deeside ..	5.12.34	..	Grindstone: Purchase of a boar: Appointment of delegate for Half-Yearly General Meeting: Citrus: Foul Brood: Address by Instructor M. N. Thompson.	E. A. Morle
St. Catherine.				
Hampshire ..	18.12.34	..	Appointment of delegate for Half-Yearly General Meeting: Unveiling of lamp. Concert: Addresses by Rev. E. A Greaves, Mr. Goodison and Instructor Byles.	E. A. L. Rowe
Princessfield ..	21.12.34	..	Roads: Water Supply: Addresses by Hon. T. J. Cawley, Messrs. T. P. V. McDaniel, F. A. Goodison and Glaister Baxter.	P. G. Graham
St. John's Upper	4.12.34	15	Seed potatoes: Fertilizers: Addresses by Mr. R. L. Rivett and Instructor Martin.	

Other Reports Received, contd.

Branch.	Date of Meeting.	Attendance.	Business.	Secretary.
Hanover.				
Lethe	28.11.34	6	Routine matters.	C. E. Wilson
Manchester.				
Mizpah	10.12.34	..	Ginger Competition: Appointment of delegate to Half-Yearly General Meeting: Manures: Report of Parish Association Meeting: Sweet potatoes: Address by Intructor J. A. Graham.	
Royal Flat	12.12.34	23	Citrus Nursery: Election of delegate to Half-Yearly General Meeting.	H. L. Johnson
St. Mary.				
Preston	26.11.34	..	Water Supply: Buying of bananas by weight: Appointment of delegate to Half-Yearly General Meeting: Authorised Persons.	I. A. Amiel
Tryall Hill	17.12.34	..	Roads: Authorised Persons: Citrus: Shed for animals at Annotto Bay Market. Appointment of delegate to Half-Yearly General Meeting.	A. A. Constable
Westmoreland.				
Sheffield	20.12.34	..	Report of Parish Association Meeting: Road: Authorised Persons: Address by Instructor Kelly.	S. A. Hall.

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1, well-grown 2 year old Holstein Bulkin, same breeding as above	On application	Secretary	J.A.S.
Indian Kale Plants	On application	Secretary	J.A.S.
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THE JOURNAL

OF THE

Jamaica Agricultural Society.

:he more people do the more they can do; he who does nothing renders himself ıcapable of doing anything; while we are executing one work we are preparing urselves for undertaking another.

ıl. XXXIX. FEBRUARY, 1935. No. 2.

BOARD OF MANAGEMENT.

The regular monthly meeting of the Board of Management of the maica Agricultural Society was held at the office of the Society, North Parade, Kingston, on Wednesday the 2nd January, 1935, at .30 a.m. There were present: Hon. T. J. Cawley, First Vice-Presi-nt, Rev. W. J. Thompson, Second Vice-President, Hon. A. C. Barnes, rector of Agriculture, (*ex officio*), Messrs. Sidney Barton, T. P. V. cDaniel, U. Theo. McKay, D. D. Phillips, S. M. Walker and . H. W. Westmoreland; Mr. P. St. L. Bacquie, Supervisor of Instructors d the Secretary, Glaister Baxter.

On the motion of Mr. McKay seconded by the Rev. W. J. Thompson, d unanimously carried it was decided that the congratulations of : Board be conveyed to His Excellency the Governor, President of : Society, on his elevation to the rank of G.C.M.G., an honour con-red by His Majesty the King.

Mr. Thompson, expressed good wishes to the First Vice-President d other members of the Board for the new year, and the hope that :ry good would follow their footsteps during 1935 and that greater hievement would be theirs. He also expressed the hope that officers the Society would continue their attitude of co-operation and that ıch would be achieved in the best interests of agriculture.

This was seconded by Mr. McKay.

Mr. Cawley replied suitably expressing thanks from himself and behalf of other members of the Board as also on behalf of the staff the Society.

›ologies for Absence.—

Apologies for absence were tendered from Messrs. C. O. Cover and . Harper Watson and Major G. B. Pease. Letter from Major Pease ›s read as follows:—

Hopewell P.O.,
December 27th, 1934.

'I much regret that it will be impossible for me to attend the meeting of the Board on ıuary 2nd. Will you please make my apologies to the Chairman.

I would like to add that I am thoroughly in agreement with Mr. McKay's resolution arding the Banana Insurance Scheme.

(Sgd.) G. B. PEASE.

›nfirmation of Minutes of the previous Meeting.—

The minutes, copy of which had been sent to each members of the rd, were taken as read, and on the motion of Mr. Thompson nded by Mr. Phillips, were confirmed.

Matters arising out of the previous Minutes.—

(a) *Statement by Secretary* was presented as follows:—

31st December, 1934.

To the Board of Management:

Gentlemen:

The Estimates have been forwarded to the Hon. Colonial Secretary with a covering letter.

All other correspondence consequent on the deliberations of the Board at their last meeting has been carried through.

(Sgd.) GLAISTER BAXTER,
Secretary.

At the request of the Board the Secretary read copy of the letter he had submitted to the Hon. Colonial Secretary, covering the Estimates.

(b) *Mr. Cover's Question re Panama Disease in St. Ann.*—The Secretary stated that Mr. Cover had written requesting that if the reply to his question was to hand it should be made public and a copy sent to him. He had, however, received no reply from the Director of Agriculture in the matter.

Statement of Accounts.—

(a) *Statement for November.*—The Secretary stated that this appeared in the minutes of the last meeting.

(b) *Statement for December.*—The Secretary stated that owing to the fact that only one day had elapsed since the end of the last month, and that day had been a Public Holiday, the statement of accounts for December was at present under preparation but not yet ready.

Half-Yearly Meeting.—

(a) *Arrangements.*—The Secretary stated that he had arranged for the meeting to be held on Thursday the 10th January, 1935, at 10 a.m. at the Collegiate Hall, Kingston.

(b) *Secretary's Report, and* (c) *Minutes of last meeting.*—The Secretary's report on period 1st April, 1934 to 30th September, 1934 was laid on the table as also the Minutes of the last Half-Yearly General Meeting held, 26th July, 1934.

(d) *Interim Agenda.*—The draft agenda for the meeting was considered item by item, and after some alterations had been made, was approved.

Resolutions.—

Mr. McKay re Storm Warnings.—Mr. McKay moved the following:—

That whereas the Government is not in a position to state the actual cost of communicating news of approaching storms to the Island.

That whereas such news is now circulated to Government employees such as the Police and Public Works employees:

That whereas the cost of circulating such news free of cost to members of the Board of Management, Justices of the Peace and prominent persons or planters residing not more than one mile from a Post Office or a Telephone or Telegraph Office would be infinitesimal.

That whereas members of the community as named above give a substantial amount of their time to the country free of charge.

Be it resolved that the Government be asked to instruct the Postal authorities to circulate storm warnings free of cost to the individuals indicated above and that a copy of this resolution be sent to every elected member during the month of February, 1935.

Mr. McKay spoke on the resolution which was seconded by the Chairman and unanimously carried.

(b) *Mr. McKay re work of Banana Insurance Committee.*—Mr. McKay moved the following:—

Resolved that the Board of Management of the Jamaica Agricultural Society representing the interest of Banana growers, agriculturally, hereby places on record its

Bananas and further commends them for the interest displayed in their endeavour to place the Banana Industry on a firm and independent footing; but would point out that in its opinion the recommendation to loan the moneys subscribed by growers to growers in time of stress is radically wrong in principle and should not be entertained by Government.

The Board unanimously adopted the first portion of the resolution. There was considerable discussion on the latter part of the resolution, and it was moved by Mr. Walker seconded by Mr. McDaniel that a Committee of the Board be appointed to go into the matter.

This was carried.

The Chairman then named the following to be the Committee, three to form a quorum, Messrs. McKay, McDaniel, Phillips, Rev. W. J. Thompson, with Mr. Walker as Chairman.

The Committee was asked to investigate the report of the Select *Committee of the Legislative Council on Banana Restoration*, and make such recommendations as in their judgment they think would benefit the banana industry as a whole.

Communications.—

(a) *Letter from C.S.O. re Special Railway concession for members attending Agricultural Courses at Hope.*—The following letter from the C.S.O. was submitted:—

12th December, 1934.

Nos. 5368/34.

"I am directed to refer to your letter No. 31 dated the 19th September, 1934, and to inform you that the Governor approves of return tickets at single ordinary fares being granted to Officers and Members of the Jamaica Agricultural Society attending the instructional course at Hope Farm on presentation of a suitable certificate signed by yourself.

2. The necessary instructions have been issued accordingly.

(Sgd.) A. R. Dignum,
for Colonial Secretary.

The Secretary was instructed to convey the thanks of the Board to the Governor for his kind action in the matter.

(b) *Letter from Director of Railway re transportation of canes.*—The following letter was submitted:—

No. 682 Jamaica Government Railway, Jamaica.
6033/34. 7th December, 1934.

"In reply to your letter of the 17th ultimo with regard to the encouragement and expansion of the Cane Farming Industry, I beg to inform you that with regard to encouraging the expansion of the Industry, we do so by means of offering a cheap rate for the transport of cane tops for establishing plantations. This is done in the hope that when canes reach maturity they will be transported to the Factory by rail.

The rates on canes generally are low and I do not think they permit of a general reduction. If there are any instances where it may be considered that the rates are somewhat higher than the traffic can stand, each case would be considered on its merits if brought to my notice.

The importance of the quick despatch of cane traffic is fully realised by the Railway Department, and the best possible service is always given.

(Sgd.) H. C. Powell,
Director Jamaica Govt. Railway.

After a short discussion Mr. McDaniel was asked to act with the Secretary in going further into the matter.

(c) *Memo from Secretary re Tariff Law and Worm Medicines for Stock, etc.*—The Secretary presented the following:—

December 17, 1934.

To the Board of Management:

Gentlemen:

I beg to draw your attention to conditions that exist with reference to the Tariff Law. Paragraph 16 of the table of exemption from duty reads as follows:

"Manures, all kinds, insecticides, fungicides, Coal Tar Disinfectants when in liquid form including Carbolic Acid, Cyllin and Jeyes" also vermin killers, and other substances, including sulphate of ammonia, nitrate of soda, lime and other substances which the Collector of Customs is satisfied are imported for use as manures, or remedies for disease of, or preventatives of insect attacks on plants and animals or destruction of vermin."

Worm medicines which are for ridding livestock of intestinal parasites are not considered by the Collector General to be governed by this clause.

I beg to suggest that you recommend to the Government that articles of this class be included in the duty free list.

(Sgd.) GLAISTER BAXTER,
Secretary.

It was unanimously decided that the Government be asked to allow such medicines as referred to in the memorandum as are imported by the Jamaica Agricultural Society to be allowed into the Island free of duty.

(d) *Further letter from Leicesterfield Branch re subsidy.*—A letter was presented from the Leicesterfield Branch asking that the Board grant a subsidy for a pure bred Leghorn hen.

The Secretary stated that he had explained to the Branch that the subsidies were granted for sires only.

The Board decided that the subsidy could not be granted.

Mr. Barton kindly offered to give a Leghorn hen to the Branch.

The Board thanked Mr. Barton, and the Secretary was directed to Communicate with the Branch.

(e) *Letter from C. P. Brown re tenacy at 10 North Parade.*—The Board considered this a domestic matter and instructed the Secretary to deal with it.

Office.—

(a) *Report from Secretary re travelling.*—The Secretary presented report on travelling done by him during the month of December, 1934.

This was noted.

Diseases of Plants and Animals: Insect Pests.—

(a) *Panama Disease of Bananas—Report for November.*—The monthly report on the incidence of Panama Disease of bananas was presented.

The Secretary said copies of the report had been forwarded to the members of the Board.

The Director of Agriculture brought to the attention of the Board that several person in the parish of St. Mary where the one root system of treatment for Panama Disease of bananas was being tried out, had taken the alteration in the method of protection to mean that they could do as they liked with spots of land that were quarantined. He feared that this would very materially hamper the experiment that was being carried out in St. Mary the result of which would be useful to the whole island.

Other members spoke on the subject and the Director was thanked for bringing the matter to the attention of the Board so that it could be publicly ventilated.

Shows.—

(a) *Letter from Spalding Branch re Show proposed for Easter Monday, 1936.*—Letter from Spalding Branch was submitted covering cheque for Five Pounds as security against a proposed show for Easter Monday, 1936.

The Secretary stated that the Dry Harbour Mountains Show had been postponed from Easter Monday, 1935 to Easter Monday, 1936 as the Clarendon Show had also been scheduled for Easter Monday 1935.

The Board thought that the location of the proposed show being in close proximity to the already scheduled show it would be wise for the Spalding Branch to choose another date.

On the suggestion of the Director the matter was deferred pending the result of a resolution on the Agenda of the Half-Yearly General Meeting regarding the whole matter of Shows.

The Secretary was instructed to inform the Spaldings Branch in the meantime of the other fixture for Easter Monday, 1936.

Bee Industry.—

(a) *Report from Committee.*—The following report was submitted:—

2nd January, 1935.

Gentlemen,

Your Bee Industry Committee met this morning without a quorum. Present Hon. T. J. Cawley and Mr. D. D. Phillips. The Director of Agriculture was present.

Information on the Foul Brood disease of bees up to the present time was submitted by the Secretary. The Director of Agriculture also gave confidential information with regard to the situation. Consequent on this information your Committee recommends that the following resolution be sent to the Government:—

"That the Bee Industry Committee views with alarm the presence of American Foul Brood among bees in the Kingston area, and asks that the Board of Management urge upon the Government the necessity to take immediate steps as are deemed wise by the Director of Agriculture for the safeguard of the Industry."

2. *The Committee also recommends that the Director of Agriculture be appointed* by the Board as a member of the Committee.

(Sgd.) Glaister Baxter,
Secretary of the Committee.

On the motion of the Chairman seconded by Mr. McDaniel, the report was adopted.

Mr. McKay asked if the Committee was satisfied with the action of the Bee Instructor in dealing with the disease.

The Chairman stated that an emergency meeting was called some time ago, and the Bee Instructor had been censured at that meeting for inactivity in the matter, but he had since been handling the situation satisfactorily.—

The meeting then adjourned for luncheon.

On the resumption there were present:—Hon. T. J. Cawley, in the chair, Rev. W. J. Thompson, Hon. A. C. Barnes, and Mr. U. Theo. McKay; the Supervisor of Instructors and the Secretary. Mr. McDaniel attended shortly after a few items had been considered. The preceding proceedings were then confirmed, there being a quorum.

On the motion of the Chairman seconded by the Director of Agriculture the standing orders were suspended to admit the consideration of a report from the Instructors Committee which sat that morning.

The report was presented as follows:—

2nd January, 1935.

Gentlemen,

Your Instructors' Committee met today and considered their Agenda.

1. We considered comments of Instructor Coke in his report for September regarding uselessness of his advice in cases of certain school gardens as frequently the Inspector of Schools gave different instructions.

Your Committee recommends that a Conference with a representative of the Board of Management with the Director of Education, the Director of Agriculture being invited to assist, should take place with a view of deciding on concerted action in this regard.

2. Your Commitee recommends that a letter of condolence be sent to Instructor Lynch regarding the death of his brother.

3. That one month's leave be granted to Instructors Lynch, Coke and Thompson, commencing date of such leave to be left to the discretion of the Secretary.

4. That the affiliation be approved of the following Branches—Rock (Clarendon); West Fairy Hill (Portland).

(Sgd.) Glaister Baxter,
Secretary of the Committee.

On the motion of Mr. McKay seconded by the Director of Agriculture the report was adopted.

Branches, Resolutions, etc.

(a) *Regale re road.*—The resolution asked that the Parochial Board take over $1\frac{1}{2}$ miles of the Cascade district road for maintenance.

The Secretary was instructed to forward the resolution to the Parochial Board for Portland.

(b) *Hanover Branches Associated re:—(i) Medical Officer of Health. (ii) Attendance of Government Entomologist at their next Half-Yearly Meeting. (iii) Registered Letters.*—The Secretary was directed to forward the first resolution which deplored the proposal to appoint one Medical Officer of Health for Hanover and Westmoreland, to the Hon. Colonial Secretary.

With regard to the second resolution the Secretary was instructed to advise the Association of Branches to send an invitation to the Government Entomologist through the Director of Agriculture to attend their next Half-Yearly Meeting.

The Secretary stated that resolution (iii) had been withdrawn by the Association on his advising them that there was an insurance system already provided by the Government, which took care of what the resolution asked for.

(c) *Manchester Branches Associated re (i) Citrus Nurseries. (ii) Experiments in Potato Culture.*—The Secretary was instructed to forward these resolutions which asked for the establishment of a citrus nursery at Grove Place, and the carrying out of a series of experiments in actual potato-growing in areas in Northern Manchester, to the Director of Agriculture.

(d) *Waterloo (St. Catherine) re (i) road No. 20 A; (ii) Citrus Grove.* Resolution (i) asked for a grant for the improvement of road No. 20A and the Secretary was directed to forward same to the Parochial Board and a copy to the Hon. member for the parish.

The second resolution asking that a citrus grove be established at Waterloo was referred to be forwarded to the Director of Agriculture.

(e) *Belfield re Government Savings Bank.*—Resolution from the Belfield Branch requesting that a Branch of the Government Savings Bank be formed at Belfield Post Office, and the Secretary was instructed to send the resolution to the Manager of the Government Savings Bank.

(f) *Bellas Gate re Sanitation of Sugar Estates.*—Resolution from the Bellas Gate Branch stated that most of the sugar estates of small settlers were in an insanitary condition owing to the keeping of dogs, cats, etc., on such premises, and asked that better sanitary protection be instituted.

The resolution was referred for the attention of the Parochial Boards' Association.

(g) *St. Thomas Branches Association re—*

(*i*) *Roads.*
(*ii*) *Water Supplies for Dalvey, Wilmington and Barking Lodge*
(*iii*) *Post Offices for Wilmington and Font Hill.*
(*iv*) *Sale of Milk.*
(*v*) *Panama Disease.*
(*vi*) *Foot Bridges.*
(*vii*) *Ganga.*
(*viii*) *Assistant Instructor.*
(*ix*) *Police Inspection of Produce Dealers' Books.*

Resolution (i) stated that the roads of Dalvey were in an unsatisfactory condition and asked for the Parochial Board's attention to the matter.

The Secretary was authorised to forward this to the Parochial Board.

(ii) Three resolutions were submitted stating that water supplies in Dalvey, Willmington and Barking Lodge districts were in a very deplorable condition, and the Secretary was asked to forward these to the Parochial Board.

(iii) Two resolutions were submitted asking that the Parent Society request the Government to establish Post Offices at Wilmington and Font Hill. The Secretary was directed to forward both these to the Postmaster for Jamaica.

(iv) This resolution asked that regulations be enacted and enforced by the Parochial Boards to ensure pure and wholesome milk being offered for sale.

The Secretary was directed to forward same to the Association of the Parochial Boards.

Resolution (v) asked for the institution of the one-root system of treating Panama Disease of Bananas, and was noted for reference to the Director of Agriculture.

Resolution (vi) asked for the erection of foot bridges over streams which flow across the roads during wet seasons.

The Secretary was directed to ask the Association of Branches to specify which particular bridges were desired.

Resolution (vii) asked for additional enactments to stamp out the growing of Ganga, mentioning the arresting of suspected parties by Authorised Persons.

The Board decided that the resolution could not be entertained.

Resolution (viii) asked that an Assistant Instructor be appointed for St. Thomas.

The Secretary was instructed to inform the Association that the Society had no funds to enable this request to be granted, and that the parish had been supplied with an Agricultural Headman to help the Instructor for that section.

Resolution (ix) asked that the Police display greater vigilance in enforcing the Produce Protection Law, particularly in the direction of inspecting Produce Dealers' books.

The Secretary was directed to submit this resolution to the Special Committee of the Board of Management at present considering the question of Produce Licenses, &c.

(h) *Rock Hall re (i) School; (ii) Road.*—Resolutions were read from the Rock Hall Branch asking for a School at Rock Hall and the improvement of the main road from Red Hills to Rock Hall.

The Secretary was directed to forward both resolutions to the Colonial Secretary.

(i) Letter covering a petition from the residents of Mocho was submitted praying for the purchase of lands at Mocho by Government for the purposes of land settlement.

The Secretary was instructed to obtain further particulars on this matter and further deal with the petition.

New Members.—

On the motion of Mr. McKay seconded by the Chairman, the following were elected to membership of the Society:—

C. J. Veitch, Cia. Brasileira de Fructas S/A., Caixa Postal 754, Santos, Brazil.

L. L. Carrington, Half-way Tree.

Other Business.—

(a) *Further letter from Messrs. D. J. Scott and Co., London re Ginger Competition.*—The following letter was presented:—

38, Lombard St., London, E.C. 3.
11th December, 1934.

JAMAICA GINGER COMPETITION.

We have read with interest in the Jamaica "Daily Gleaner" of the 12th November the discussion that took place at the Meeting of your Board of Management relative to the Competition and we appreciate all the suggestions that were put forward by the members who spoke with a view to obtaining for the growers some permanent benefit to the Ginger Industry that should result from the Competition.

With regard to the matter of naming the extent of the area of production to which competitors should be restricted, we fear that this would have been impossible; our idea was to embrace all growers large and small for the reason that the small grower to-day may be the large grower to-morrow. The main point of the discussion, however, with which we are concerned was centred around the judging, and awarding of the prizes to the successful competitors. This, we decided after due consideration must of necessity take place in London by impartial judges who are experts and who understand the requirements of the trade in this country. We appreciate that many well known dealers in Ginger in the Island have a good knowledge of quality but this does not appear to us to be sufficient otherwise the idea of this competiton would not have been put into effect by us to endeavour to raise all round the standard of quality and prevent the great dissatisfaction of buyers resulting from shipments of badly prepared and inferior quality Ginger.

It is not an uncommon thing to hear from our customers such expressions as "the best quality Jamaica Ginger now-a-days is not good enough for us". It will therefore be readily appreciated that the judging could not possibly take place in Jamaica. But, the usefulness to the Produce Inspectors as expressed by one member of the Board who advocated that the judging should be done in Jamaica will be met by us, and we are pleased that our attention has been drawn to the matter.

We therefore propose after the Awards have been made to send to you the actual representative samples drawn from the packages of every prize winner. These samples should be retained by you permanently for the future guidance of the Produce Inspectors and for the inspection of all the growers who you will no doubt get together for the presentation of the prizes by your esteemed Society.

As you will observe from the Rules governing the Competition full size packages must be submitted by all competitors and so as to clarify the situation for those who would like to participate, we think it might be advisable for you to give publicity to this letter in the "Gleaner" along with a copy of the Rules.

We should like to mention for the benefit of the growers and planters taking part in the Competition that the sampling of Ginger is done by experts at the London warehouses. The method is so efficient that we have never in all our experience heard of a case where what is known as a "dock sample" drawn by these experts varied from the bulk of the shipment after it has been received by the buyers.

We have to thank you for the interest your Society has taken in the matter and we trust the Competition will result in some lasting benefit to the Ginger growers and to all shippers and others in Jamaica interested in the Industry; likewise to the trade in England generally and in particular that section which depends on us for first class deliveries against our contracts for supplies of this commodity.

(Sgd.) D. J. SCOTT.

The Secretary stated that there was also another proposal for a Local Ginger Competition, and read:—

(b) *Letter from J. Stephen Miller, Esq.* of Christiana as follows:—

Christiana,
RE GINGER. December 22nd, 1934.

'I have proposed to give fifty pounds (£50) in cash prizes for the best qualities of dried Jamaica ginger, and enclose herewith a copy of the circulars I am distributing. I want you like a good fellow to help me with this. As you know, the quality of ginger has been deteriorating for a long time and other countries are getting ahead of us in this. Unless we do something, we will be out of it before long. I am awarding these prizes to see if they will help in some way. Of course, without your help and the help of your Department, we will be nowhere in getting the people to realize the necessity of raising the standard of quality at present. I want you to put this before your Board and get them interested so as to get the Instructors in the ginger districts to encourage the people to pay special attention to the reaping and curing of their ginger.

I would be glad if you can get busy on this right away. Your kind co-operation will be greatly appreciated.

With the compliments of the season.

(Sgd.) J. STEPHEN MILLER.

There was some discussion on both Competitions, during which the Supervisor of Instructors pointed that Messrs. D. J. Scott & Co., had not specified whether they wanted blue or yellow ginger or both.

The Secretary was instructed to obtain the necessary information from Messrs. D. J. Scott & Co., and to co-operate with both parties so that both Competitions would be successful.

The Secretary stated that the information would be published in the Press and the Journal and information sent direct to the Instructors and the Branch Societies.

The Board approved of this.

(c) *Letter from Director of Public Works re Main Road drains and holdings.*—The Secretary stated that this letter was the outcome of a resolution from the St. Catherine Branches Associated asking that a copy of the Main Road Law be sent to each Branch. The Director of Public Works had quoted the Law calling attention to the relevant sections.

The Secretary was instructed to publish the information in the Journal.

(d) *Resolution from Royal Flat Branch re Lunatic Assylum Law.*—The Secretary was directed to inform the Branch that this subject does not come within the purview of the Agricultural Society.

(e) *Resolution from Deeside Branch re road.*—The Secretary was directed to forward to the Public Works Department the resolution from the Deeside Branch asking that the main road passing through the Deeside district be put in proper order.

(f), (g), (h), *Resolutions from Bybrook, Buxton Town and Tryall Hill Branches re roads.*—were referred to the Secretary to be forwarded to the proper authorities.

(i) *Resolution from Tydixon Branch re D.M.O.*—Resolution as submitted from the Tydixon Branch asking that the D.M.O. of Crofts Hill be requested to treat patients earning less than 12/- per week at the centres of Lluidas Vale and Point Hill as he treats paying patients.

The Secretary was directed to forward this to the Superintending Medical Officer.

(j) *Resolution from Ocho Rios Branch re Panama Disease.*—This resolution asking that the one-root system regarding Panama Disease of Bananas be instituted was directed to be referred to the Director of Agriculture.

(k) *Resolutions from Spring Garden-Rock Spring Branch re (i) Bridge over Mouth River; (ii) Timber Trees on Crown Lands; (iii) Parochial Road.*—Resolution (i) asked that the Board endeavour to get a bridge erected over the Mouth River on the Parochial Road leading from the main road to Durham.

The Secretary was instructed to forward same to the Parochial Board.

Resolution (ii) desired to obtain timber trees from Crown Lands, these to be sold to small settlers.

The Secretary was instructed to put this resolution on the Agenda for the Half-Yearly General Meeting.

Resolution (iii) asked that the Parochial Board be requested to take over the Parochial Street leading from Mr. T. Needham's holding to Kelton through Griffiths Hill.

The Secretary was instructed to forward this to the Parochial Board.

(l) *Resolutions from St. Ann Branches Associated re (i) Rat Campaign (ii) Panama Disease; (iii) Telephone for Gibraltar Post Office.*—The first resolution asked that a Rat Compaign be carried through in the parish.

Mr. McKay suggested that the Branches be requested to organize a Rat Killing Campaign during a certain special week.

The suggestion of the Director that articles be published in the Journal on methods and poisons for the destruction of rats, was agreed to and the matter left in the hands of the Director and the Secretary.

The second resolution asked for the adoption of the one-root system for Panama Disease of Bananas, and was noted to be forwarded to the Director of Agriculture.

The third resolution asking that a telephone be installed at the Gibraltar Post Office, was noted to be forwarded to the Postmaster for Jamaica.

(m) *Lucky Valley re (i) Water Supply; (ii) Road.*—Resolution from the Lucky Valley Branch was submitted asking that their water supply be tested and protected. Resolution asking that steps be taken to have the road leading from the Lucky Valley to the O'Meally district graded as second class instead of third class, was also submitted.

The Secretary was instructed to forward both resolutions to the Parochial Board.

(n) *Clarendon Branches Associated re (i) Dry Farming; (ii) District Nurse; (iii) Central Government Dispesnsary.*—The first resolution asked that measures be taken as was done in South St. Elizabeth to demonstrate to the cultivators of the plains of Mid-Clarendon the principles of dry-farming.

The Secretary was instructed to inform the Association of Branches that this matter was covered in the Board's request to the Director of Agriculture to institute a demonstration farm in that area, and such a farm would probably be started later in the year.

The second resolution asking that a District Nurse be appointed for the Toll Gate area was referred to be sent to the Superintending Medical Officer.

The third resolution asked that a Government Dispensary be established at a centre where it would serve the districts of Toll Gate, Osborne Store, Decoy, Race Course, St. Todies, Clarendon Park, Scotts Pass, Rock, &c.

The Secretary was asked to send this to the Superintending Medical Officer.

(o) *Toll Gate re Bull.*—Resolution was submitted from the Toll Gate Branch asking the Board to subsidize a pedigree bull of milking strain to enable them to establish the milk and butter industry in that section.

Mr. McKay said he hoped that the Director of Agriculture would be able to render some assistance in this matter.

The Secretary was instructed to obtain further information on the subject and then refer the matter to the Director of Agriculture.

The meeting then adjourned to Wednesday, the 6th February 1935 at 11.30 a.m.

FOR SERVICE.

Imported Bucks, Belgian Hare, "Duke" and New Zealand Red "Ted Supreme."

For fees and further particulars.,

Apply 4 Beechwood Auenue.

TWO DISEASES OF COFFEE OCCURRING IN JAMAICA.

(By Mr. W. H. Edwards, D.I.C., F.E.S., *Government Entomologist*).

The Fungus Root Disease of Coffee known as Black Rot or Salt Petre.

This disease is commonly observed in Jamaica at the higher altitudes or amongst settlers' coffee where plants are often overcrowded. It is caused by a soil inhabiting fungus, Rosellinia sp., which attacks a variety of plants other than coffee. Ginger, avocado, yams and cocoes are also frequently attacked in the settlers' mixed cultivation, and contribute in spreading the disease.

Old tree stumps and pieces of rotting wood form breeding places for the fungus, while the disease is common where such have been left amongst the plants. The disease, however, is not restricted to such areas and is also found in fields where there are no other plants than coffee; it there seems to affect plants which grow on poor soils or suffer from conditions not propitious to vigorous growth.

Control

As the pathogenic fungus lives in the soil and travels from root to root it is not at all easy to check its spread.

Soil treatment by means of fungicides has up to the present proved of little use.

Diseased trees should be uprooted, taking great care to dig out as much of the roots as possible and all such plant tissues should be completely and immediately destroyed by fire.

A trench 18 inches deep should be dug round diseased spots including in such isolated areas all trees growing at the edge which may be suspected of being already infested. It is advisable to leave the isolated areas fallowed during a year or two during which time the soil should be repeatedly aerated by thorough forking. If desired, crops such as scallion, peas, corn, which are not susceptible, can be grown on those plots.

Whilst rigid application of the measures mentioned above will restrict the spread of the disease it is advisable to minimise the possibility of its incidence by seeing that the soil where susceptible plants are grown is properly drained or does not become depleted of available plant food. It is also inadvisable to grow susceptible plants among coffee groves or to leave masses of plant tissues to rot in the groves as occurs when trees which have died or have been felled and allowed to rot on the ground between the coffee trees. It should be borne in mind that the fungus finds in such decaying plant tissues an abundance of suitable material to develop and spread to the growing trees as soon as the vitality of these becomes impaired by unfavourable environmental conditions, deficiency of food in the soil, etc.

The American Coffee Blight.

The fungus which is responsible for that disease produces on the leaves a large number of discloloured circular spots about ¼ inch in diameter.

These lesions which are at first of a darkish colour ultimately become light grey or white, they are conspicuous on either surface of infested

leaves. The abundance of these spots usually renders outbreaks rapidly and easily detectable.

The fungus also attacks the berries on which it forms one or two circular white spots similar to those on the leaves. The beans obtained from affected berries are usually discoloured and grade lower.

On the young shoots the spots are whitish and usually elongated. Infested bark dries, cracks, and breaks away in flakes, leaving the brown wood exposed.

The disease in severe cases causes complete defoliation of the trees and ultimately a form of die-back of the twigs. If allowed to spread unchecked crops can thus become seriously reduced.

The incidence of this disease is closely related to the humidity of the atmosphere; outbreaks usually occur in the wetter hill districts after prolonged periods of rain. It usually starts on trees which are too much shaded or are growing very close to each other in damp, sheltered situations.

As soon as the disease makes its appearance in a plantation measures should be taken to check its spread and to cure the affected plants.

Measures of control consist in:

(1) Spraying all affected trees as well as those most susceptible of becoming infected with Bordeaux mixture or with Burgundy mixture if good quality lime is not available on the spot. When spraying, both sides of the leaves and all the twigs should be treated.

Burgundy Mixture is prepared as follows:—

Bluestone (Copper sulphate)	4 lbs.
Washing soda	5 lbs.
Water (rain water preferably)	40 gallons

The bluestone is broken up and dissolved in 35 gallons of water contained in a wooden barrel. In another vessel the washing soda is dissolved in 5 gallons of water. When both chemicals have all been dissolved (melted) the Soda solution is poured slowly into the bluestone solution while the mixture is stirred constantly and very thoroughly. The resulting Burgundy mixture should first be tested by holding a thoroughly clean blade of a knife or a new wire nail in the solution for about a minute. If no discolouration of the nail or knife blade takes place the mixture is fit for immediate use. In the event of the discolouration of the steel more soda solution should be added until no discolouration of the steel takes place on testing the solution. It is important that ordinary nails or knives should be used as stainless steel does not give the test. Further it is important that wooden, enamelled or earthenware containers should be used for the mixture as metal containers are attacked by the mixture and cause it to lose strength.

Bordeaux Mixture is made in a similar way using 4 lbs. of bluestone to 35 gallons of water and slowly adding to this 4 lbs. of freshly slaked lime which has been mixed with 5 gallons of water. The same test and care should be applied as with Burgundy mixture and again only wooden, enamelled or earthenware containers should be used.

With Bordeaux mixture it is advisable to strain the liquid through a fine gauze before pouring the mixture into the sprayer otherwise small pieces of grit from the lime are liable to get into the machine and block the nozzles.

With Bordeaux and Burgundy mixtures the stock barrel should be well stirred before taking out any of the mixture as these mixtures are liable to settle.

(2) Pick off from the trees the affected leaves and gather those which have fallen on the ground and burn.

If these measures are rapidly applied the disease will not spread and trees which are already infected will recover without losing a large number of twigs.

An obvious way of reducing the chances of severe outbreak of that disease is by increasing, as much as would not produce injury by too much exposure, the access of sun and air to the trees.

W. H. EDWARDS.

McKINNONS COFFEE MACHINERY

Will assist you in securing high prices for your Coffee

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CROPS DON'T JUST GROW!

EFFICIENT FARMERS GROW THEM AND

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THESE ARE

ORGANIC MANURES.

The land building qualities of organic manures are universally recognised. In other countries organic fertilizers are more expensive than are inorganic fertilizers.

Our product being fortunately produced within the Island, we can supply as cheaply as imported organic fertilizers.

WE GUARANTEE ANALYSIS

WE OFFER EXPERT SOIL SERVICE

We gladly test soils for acidity, available nitrogen, phosphoric acid and water soluble potash, and supply mixtures suitable to the needs of the individual buyer. We don't sell blindly nor wish you to buy blindly.

We count among our customers some of the best known Planters in Jamaica.

For Quotations apply, J. M. WHITESIDE, Falmouth.

SPEND

EASTER MONDAY

April 22nd, 1935

AT THE

ALL ISLAND AGRICULTURAL SHOW

AT

Muir Park, May Pen,

CLARENDON.

TO BE OPENED BY
HIS EXCELLENCY THE GOVERNOR.

£250. In Prize Money.

JAMAICA MILITARY BAND.

Special Exhibits of Stud Stock by Department of Science and Agriculture.

AMUSEMENTS:

Help to Improve Agriculture--
EXHIBIT - ATTEND - ADVERTISE.

PRESIDENT:
Hon. G. W. Muirhead.

CHAIRMAN & TREASURER:
Major A. R. Moxsy.

HON. SEC.:
R. O. Terrier, Esq.,
P. O. Box 33.
May Pen.

EDITORIAL COMMENTS.

Our Agricultural Income.—

That Jamaica is an agricultural country is perhaps the most hackneyed phrase in use in the colony nowadays. We are frequently reminded that agriculture is practically our only true source of wealth. The word wealth immediately suggests affluence, or at least independence and freedom from want on the part of the landowners and the tillers of our soil.

That such a suggestion is far from the truth is unfortunately only too true. To arrive at meticulously accurate figures of the income of the agriculturists of the country is of course impossible, but there are a few indices which may be used to serve us in arriving at at least a rough approximation of the degree of the prosperity or lack of it that our agriculturists experience. The export figure of values is of course, useful. It is of course, disgraceful. If the difference between the export figure (which to simplify it may be referred to as the amount we earn from abroad which we use to pay for what we buy from abroad) is the measure of our progress in wealth, then of course the picture should be regarded as very doleful. If both exports and imports have increased per head of the population in the past few decades but the surpluses of export over imports have not, it would point to an increased standard of living rather than increased wealth. We are aware of the existence of certain invisible imports however, such as the tourist trade, and earnings of our emigrants abroad, as also a very limited flow of money from abroad for investments here, but making the most liberal allowances for all this the situation cannot be considered satisfactory. The Income Tax figures are very enlightening although their examination paints the picture with still darker hues. The incomes assessed are those of £300 or more.

The gross income so assessed for 1933 was £3,740,358
and for 1932 was £3,695,697.

These were of course, bad years for the banana but may be termed really normal for other produce. The banana crop for normal years may be conceded to add another £500,000 to this income. The analysis of these figures however should produce, on those who are interested in the agricultural prosperity of the country, some startling reactions. We find that the non-agricultural incomes account for the following totals, made up as follows:—

	1933.	1932.
Rents	97,867	103,190
Interest on money and dividends arising from sources within the Island	358,646	344,901
Profits from outside the Island	106,097	111,790
Profits from trades and professions ..	1,795,356	1,784,141
Official salaries and pensions	261,556	256,347
Casual profits	6,668	5,325
Total definitely non-agricultural ..	£2,626,190	£2,605,694
Salaries and wages from employment other than official sources, probably in part agricultural	768,028	773,455
Working of estates and pens, definitely agricultural	346,140	316,548
Total	£3,740,358	£3,695,697

Of the income accounted for from employment other than from official sources, those of us who know the ruling rates of salaries on farms know how few positions there are that carry salaries of £300 or over. We are therefore forced to the conclusion that only a very small percentage of this amount is derived from agricultural sources direct. It would appear to us that agricultural incomes of over £300 per annum is fully covered by our estimate of £500,000 between 13 and 14% of the total of this standard of incomes.

Of the totals it will be noted that nearly £500,000 of income was derived from sources outside the Island. We again refer to agriculture as our primary source of wealth, and if this is true, which assuredly it is, then the incomes from rents, interests, dividends, official and other salaries, even casual profits, must all be contributed to the owners of such incomes for services and trade profits by the agriculturists.

The importance then of the agriculturist being in a position to pay is without doubt of first importance to everybody. Still another figure shews us the inferior position of the agriculturist. Of, 6,582 Income Tax payers in 1933, 583 derived incomes from the working of land. Of 6,389 in 1932, only 562 derived income from working of land. Approximately then for every 100 persons possessing incomes of £300 and over per annum, only 8 are land workers. We land workers seem in a very bad way and so we are.

If some imaginary figures were used which although estimates are nevertheless sufficiently near to accuracy to point our moral, we would find the situation somewhat like this:—

Our population	1,000,000	
Non-adults and non-workers ..	500,000	
	500,000	
Adult females non-workers ..	*150,000*	
Workers	350,000	
Professional, trading and commercial		*25,000*
Land owners and agriculturists ..		150,000
Labourers		175,000
		350,000

This would indicate that less than two-fifths of one per cent. (one person in 250) of those engaged in agriculture earn over £300 per year and of the rest of the occupations, 24% (60 in 250) to use the same common measure do earn such incomes. We also find 199 people of the 6,582 in 1933 with incomes accounting for £1,357,586 more than a third of the whole.

These figures have been analysed to show how low our standards of agricultural income must be. There must be some 170,000 salaried people and agriculturists with earnings below the income tax standards, labourers excluded. As the aggregate incomes taxed about equal our export trade values, the entire income of the masses outside the income tax minimums must about total the value of our local consumption of agricultural products. Much of this consumption is consumed by the producer. Very little money is handled by him. There are really no surpluses to save. He is saved by a very low standard of living.

can register progress in only one way and that is by marshalling force practical and available, that we can command.

our judgment here is the great problem, and its vastness and

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urgency appears not to be realised. The source of the income-earnin power of this country is agriculture and we must invest in it our brains our money and our will to make it succeed. We already referred t some details of this problem in our Editorial Comments appearing i our last issue.

ACKNOWLEDGMENTS.

We acknowledge with pleasure the receipt of the Annual Report fo 1934 of the Jamaica Society for the Prevention of Cruelty to Animals Without doubt this praiseworthy Society is doing very valuable work in the Colony. It is gratifying to see that voluntary support of th Society by its well-wishers continues generous, still, we commend i for support to every lover of animals.

We, as a Society, were happy to co-operate with the very active St Ann Branch and its enthusiastic Secretary, Mrs. G. Cocks, and ou St. Ann Instructors are now equipped with simple veterinary equipment for the treatment of animals.

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REVIEW OF CURRENT LITERATURE.

"The Diseases and Curing of Cacao, by H. R. Briton-Jones, D.Sc., P.H.D., D.I.C., A.R.C.S., Macmillan and Co., Ltd., London, 1934 10/- 161 pp. 37 plates.

The author is Professor of Mycology at the Imperial College of Tropical Agriculture in Trinidad, and as such has had very wide experience of the troubles caused by the parasitic diseases of cacao.

In his preface he states that the book has been written primarily for Agricultural Officers and Planters, and it conforms to this ideal throughout. The descriptions are simple and clear, and the illustrations are excellent. The control measures recommended are essentially practical and the economic aspect is never ignored.

The list of alternative hosts given for many of the diseases will be found very useful.

The last chapter is devoted to the preparation or "curing" of cacao. In it the author summarizes the existing information on the subject of fermentation and drying. A comparison of the methods in use in the various producing countries is given, as well as suggestions for their improvement. The chemical changes accompanying fermentation are explained simply, and many useful and practical suggestions are made, even to the use of copper instead of iron nails in the contruction of the sweat boxes.

This should be a most useful handbook for the cacao grower or Agricultural Officer in any part of the world.

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AGRICULTURAL CREDIT.

Everybody is agreed that the agricultural credit facilities in the Colony are inadequate and unsatisfactory. Everybody is agreed that the proper agricultural credit facilities would contribute to the prosperity of the Colony. Our trouble has been to devise means and methods of hitching up investment capital with agricultural production. Wide differences of opinion exist as to what the methods should be, and few practical and constructive suggestions have been put forward for consideration. Readers will remember that this Journal put forward some constructive suggestions on the matter in its November issue for the year 1933.

We reproduce below an article appearing in the "Breeder's Gazette" for October, 1934, an American Journal devoted to the livestock industry which outlines the methods adopted by the American Government for linking up investment capital with agriculture for one type of credit, that is, a relatively short term credit called production credit.

We may very well learn something from the methods outlined.

Editor.

How to Get Working Capital.

You can borrow money from your own bank to buy or maintain your herd or flock. Know where your Production Credit Association is? Write Breeder's Gazette.

By Walter F. Gahm, President, Production Credit Corporation of Louisville.

"Production credit is a new term for an old commodity—if credit can be so termed. Production Credit Associations are the new instrumentalities for supplying it to farmers. They form a division—and a vital one—of the Farm Credit Administration plan and organization for a permanent, sound, complete co-operative system of farm credit. Production Credit Associations lend money to farmers who in borrowing become stockholder members of the association.

Production Credit Association loans are short-term loans, usually for a year or less. Their purpose is to supply farmers with money with which to pay current farm operating expenses and to buy livestock and commodities required in well planned farm operations. Their plan of finance and operation is based upon the co-operative principle of stock ownership. The character and experience of the farmer and his ability to insure repayment of the loan are essential factors. The loan is secured by a lien on his personal property, including crops, livestock and farm products. The lending plan of the Production Credit Associations tends to place the borrower squarely upon his own financial resources. It gives him a source of short term credit in a lending organization in the management of which he as a stockholder possesses a voice and a vote.

Your County Belongs—

Production Credit Associations only got under way a year ago. Most of them, in fact, were not organized until last winter and spring. Up to the early days of September, 1934, they had loaned $55,000,000, plus commitments of $13,000,000 more, while borrowers had repaid $16,368,000, or about 11 per cent. on early loans that matured during the summer. Co-operatively-minded farmers are turning in increasing

numbers to Production Credit Associations for short term credit for operating farms—production credit!

Take Indiana, for example. The 10 Production Credit Assocaitions of that state were late getting started. Spring work had begun before they opened their doors for business. Crop financing was not accomplished on a large scale. Livestock financing, as fall came on and the feed supply was assured, in many counties assumed rather large proportions. Every week now records a consistent increase in Production Credit Association loans throughout the state. Up to the last of September Hoosier farmers to the number of 2,260 borrowed $704,355 at 5 per cent. from their 10 associations—5% yearly rate for the time you actually have the money! Interest is paid when the loan is paid, not when loan is made.

Those living in the ten Indiana counties served by the Muncie Production Credit Association seemed to grasp the idea first and most strongly. That Association passed the $100,000 mark first of all the Indiana associations. Its loans now number 411 and total $113,410 as of October 6. The Peru Production Credit Association with its seven counties had loaned $120,837 to 357 farmers by that date, anp the Lafayette Production Credit Association had crossed the $100,000 line with 272 loans totalling $104,035. In Ohio, the Black Swamp Production Credit Association at Fostoria has loaned 330 farmers $151,875. The Tennesseeans saw quickly the advantages of a system of production credit as provided by Production Credit Associations. The ten associations in Tennessee were in the field early in March. The Memphis Production Credit Association has loaned $184,026 to 861 farmers. Lots of cotton in that area was grown on Production Credit Association money. The Dyersburg Production Credit Association loaned 525 farmers $109,093, and in the Murfreesboro Association 391 borrowers were using $108,889 of Production Credit Association money up to October 6. In Kentucky, one association—Central Kentucky located at Lexington—has loaned $110,435 to 117 farmers. All together, in the four states mentioned, 8,941 loans have been closed for $2,684,802 during the first six months following the oraginaztion of the associations.

Who can borrow?

Who may apply for Production Credit Association loan? Any farmer. How does he go about it? Well, first let's briefly sketch the plan and operations of the associations.

Here is the Farm Credit Administration at Washington under W. I. Myers as Governor. For each of its four main divisions there is a commissioner. S. M. Garwood is the Production Credit Commissioner There are 12 regional Farm Credit Adminitration organizations—identical with the 12 Federal Land Bank disritcts with which we long have been familiar. The Fourth Farm Credit Administration District comprises Ohio, Indiana, Kentucky and Tennessee. The Farm Credit Administration of Louisville serves these states. The Production Credit Corporation of Louisville is a unit of the Farm Credit Administration of Louisville. Walter F. Gahm is its President and Raymond Smith its Secretary. This corporation, under the Farm Credit Administration plan, found that its first duty was to organise Production Credit Associations to serve these states. It organized 12 in Ohio, 10 in Indiana, 12 in Kentucky and 10 in Tennessee. These associations it capitalized, by purchase of stock in each. It exercises a continuing supervision over their activities. Each

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association has its own secretary-treasurer who manages it under the supervision of the usual officers and directors. So much for the "set-up."

How do you apply for a loan?

How does any farmer go about borrowing money from an association? It is very simple. If he does not know he must find out, of course what Production Credit Association serves his county. Any county agent or National Farm Loan Association secretary will tell him, or he may write to the Production Credit Corporation, at his Land Bank headquarters, and get a little pamphlet with a map showing the counties served by each association. Every county belongs to an association. In each county is a representative of that association. The prospective borrower need not travel to the association office if it is outside his own county. His county representative will help make out his loan application and start the ball rolling. Borrowers, of course, may go to the office, and the secretary-treasurer will be glad to to have them come.

Let's follow a loan application through and see what happens. We will take an actual instance. A Kentucky farmer came in the office the Mammoth Cave Production Credit Association at Glasgow last summer. Wanted to know about these new loans. Secretary George C. Young explained the system, took out an application form and filled in the required information given him right over the desk by the applicant: How much of a loan is desired? For how long? For what use? The farmer wanted a moderate sum to pay up some outstanding debts incurred in buying fertilizer and paying for labor in getting his tobacco crop on its way to maturity and also wanted to buy a few more ewes. "A small flock pays right well." Would pay loan from the proceeds of tobacco and from the sale of hogs on hand. Corn for feeding them out was then in the field and practically made. Would pay part December 1 and balance March 1. Yes plenty of stuff around the place—small flock of good ewes, half a dozen good mules, nice bunch of Jersey cows knee deep in lespedeza pasture Plenty of regular income these cows bring in! Ice cream factory buys the milk, and pays well and promptly. "Don't know what a grocery bill is at our house; cows pay it all. Yes sir, I reckon there is plenty of stuff around the farm to make your loan safe," declared the prospective borrower.

Inspection and the "Papers."

The following day an inspector for the association drove out to the the applicant's farm to look over the place, size up the security—and size up the farmer and his folks. He reported that the loan looked sound, and he recommended granting it. The executive committee of the association met shortly, considered all the information on the subject and agreed with the inspector's report, granting the loan. The farmer then signed notes and mortgages, and the necessary recordings were made. Note, mortgage and all details went forward by the next mail to the Federal Intermediate Credit Bank of Louisville. No Production Credit Associations do not lend their own money. They have not capitalization enough for that. Neither do they lend taxpayer's money. They endorse the notes of farm borrowers which, being accepted by the Federal Intermediate Bank, are immediately discounted by that agricultural bank of discount and the money at once is made available to the borrower.

Production Credit Associations do not lend taxpayers' money.

Neither does the Federal Intermediate Credit Bank. It gets funds for discounting agricultural paper—farmers' notes endorsed by Production Credit Associations, or farmers' notes endorsed by agricultural credit corporations and livestock loan associations—by selling its own debentures or short termbonds in the general investment markets. This money it borrows very cheaply, because canny investors know that the farm paper which the Federal Intermediate Credit Bank holds is sound and well secured. It borrows its funds so cheaply that it can discount sound paper at this time at 2%, and so as to allow Production Credit Association loans to be made at 5% The 3% difference constitutes the income upon which the association lives. Farmers never before have so completely enjoyed direct access to the cheap money of the investment markets which this means affords them. Industry and commerce long have benefited from it.

Every borrower a Stockholder.

So our Kentucky farmer received his money in but a few days after applying, paid up his bills, put his current business on a cash basis and bought some more ewes to graze off the bountiful pastures of late summer and fall. His note is safely stowed away in the vault of the Intermediate Credit Bank of Louisville against the day when it matures and is paid. The borrower, meanwhile, is a stockholder in the Mammoth Cave Production Credit Association. For each $100 or part thereof borrowed, he owns $5 in stock of the association. This gives him a vote in its management. If any borrower lacks the money to buy the stock, he may pay for it out of the loan proceeds. 'fte his loan is paid he may keep the stock as a basis for future borrowing, hold it as an investment in a permanent system of agricultural credit, or he may sell it to some other applicant.

What can you buy with the money?

For what purposes may Production Credit Association money be borrowed? All usual production expenditures and some not so usual. Oyster farmers down east borrow Production Credit Association funds; a bee-keeper in Ohio borrowed Production Credit Association money to buy an old church building for remodelling into a honey extracting plant and storage place for bee supplies. Farmers borrow Production Credit Association money to finance crops—seed, fertilizer, labor, harvesting; to buy feeder and stocker animals; breeding cows, sows, ewes, dairy cows, poultry; work horses; to buy spraying materials and orchard supplies; feed; baby chicks; to pay off current farm bills; to pay for repairs and improvements of buildings. The purposes are almost endless.

Plan of Repayment Necessary.

Loan applicants are asked for collateral. Their loans must be sound and collectible. They are asked for a financial statement showing their assets and liabilities and for a statement of purpose for which the money is to be used.. Highly important, indeed, they are helped to formulate a plan of repayment. This last factor is a great influence in placing the use of farm credit upon a definite planned basis. A borrower who obtains a loan under an agreement that he will pay it in a certain way with money derived from specified sources, is very likely to follow that plan through and to place the service of the debt as the first claim or money so derived.

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DAIRY CATTLE BREEDING IN JAMAICA.

By T. P. Lecky.

(A Fourth-year Thesis for Course in Animal Husbandry at the Ontario Agricultural College, 1934.)

(Continued.)

These are the results of bulls used since 1920 at which period the herd was at its best. 48% of the daughters qualified for the dairy herd. The greatest failure with this breed was with the graded cows especially the half-breeds. The two best graded cows were three-quarter bred Red Polls. Over 80% of the grades were unfit for dairying.

Results of 3 generations in Jamaica (1911-33).

	Imported.	1st.	2nd.	3rd.
	lbs.	lbs.	lbs.	lbs.
Cow No. 1.				
Average lactation ..	6,015	3,131	6,888	
Average butter-fat ..	246.6	126.6	277.9	
Average milking wt. ..	1,302	1,102	1,127	
No. of cows qualified ..	1	4	3	
Cow No. 2.				
Average lactation ..	3,625	3,213	4,912	6,702
Average butter-fat ..	115.9	105.2	196	292.7
Average milking wt. ..	1,150	1,078	983	1,296
No. of cows qualified ..	1	4	.5	2
Cow No. 3.				
Average lactation ..	4,391	3,417	5,521	3,881
Average butter-fat ..	184.0	145.7	216	209.6
Average milking wt. ..	1,190	919	1,032	1,126
No. of cows qualified ..	1	4	4	1
Cow No. 4.				
Average lactation ..	6,005	4,003	4,416	
Average butter-fat ..	277.4	163.3	199	
Average milking wt. ..	1,132	1,145	1,120	
No. of cows qualified ..	1	4	2	
Summary—				
Average lactation ..	5,059	4,129	5,073	5,762
Average butter-fat ..	216	142.1	234.3	265
Average ..	4.1	4.1	4.0	4.8
Average milking wt. ..	1,214	1,139	1,136	1,239
No. of cows qualified ..	4	14	14	3

Milked 35; culled 16; died 4; foster-mothers 3;—58 cows qualified 60% of the offspring of the four leading foundation cows.

Before going into the advisability of rearing Red Polls in Jamaica the following statement by the former Director of Agriculture (5) is here given as follows:

"Our experience at Hope Farm serves to demonstrate that as purebred it can be maintained at a good standard under tropical conditions provided the best blood is used and the cattle given the most favourable treatment. This involves:—

(a) rearing the calves on the whole milk of good native cows which are brought in and fed during the heat of the day and fed with the dairy herd;

(b) feeding the yearlings on the same ration as the ordinary dairy herd;

(c) allowing the heifers an extra year for growth so that they calve nearer to the four years than three years which is usual in good English herd of Red Polls;

(d) stabling the cows in the heat of the day;

(e) scrupulous attention to dipping and the use of tonic doses of Trypan blue when the animal's coat shows that it is suffering from blood parasites."

This statement in the writer's mind clearly sums up the care and management necessary for this breed. You will notice that it calls for very expensive rearing of the calves and the heifers. One year's useful work is lost by not being able to breed them earlier and at the same time they are eating of the same feed for the dairy herd and to bring this to a climax only 48% have qualified as useful dairy cows. The writer does not think this breed can be given to the public unreservedly from a dairy point of view. No farmer who expects to make a living from his farm can afford to keep them on the above mentioned basis without suffering financial loss if he cannot get high prices for his bulkins. Unfortunately the great popularity of the breed in Jamaica lies in the excellent Internal Champion bulls imported not so much their gets as their individuality as show animals. Farmers that are not very close to the dairy centres require an animal that will give them a fair amount of milk and her sons can be used for beef creditably well. Under the best conditions it is possible to realize this but it is very doubtful whether this will pay or not.

A breeder may well be advised to stick to the true dairy or beef depending on how near he is to the market. The Red Polls in the country are primarily looked upon as beef cattle. With the introduction of a condensed milk factory this breed shall have its greatest appeal but contrary to this one finds in Canada (one of the greatest centres for dairy cattle in the world) where butter, condensed milk and cheese are produced, the factories are supplied from herds with only the dairy breeds.

More so it is true for Jamaica, where hybridization is necessary to put in constitution and if one finds it so difficult with the pure dairy so much more will it be with the dual-purpose breed. The graded daughters or Royal Boy, Crowfoot and Panama were 84 and only 13 made an appearance in the herd, and even these all did not come up to the herd's average. This is very unsatisfactory from a commercial standpoint. If the Government can afford to keep up a purebred herd to supply the "Pen-keepers" with bulls it may be of some value to the beef industry. The first cross makes fairly good beef cattle.

To produce a tropical dual-purpose breed by using Red Polls, which is the best dual-purpose tried, will be a very difficult work, since one is trying to balance between two opposite characters—beef and dairy type, and to introduce Zebu blood to give vigor and constitution. Producing the right dual-type is difficult in the purebred herds as it tends to swing to beef or dairy; much more will it be in a new breed.

Zebu Cattle.

Zebu cattle are a distinct species Bos Indicus to the Northern Cattle Bos taurus, but do not seem to be as far removed as the Yak or the North American Buffalo (Bison) as their F1 hybrids are fertile in both male and females. The term Zebu does not apply to a breed but rather to a collection of breeds such as Mysore, (Amrit Mahal) Nellore (Ongole) Missar (Hariana) Gugerat Kankieg, Sindhi,

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Thar Parker, and Montgomery (Sahiwal). Of these breeds the Hope Farm has found the Sahiwal or Montgomery to be best adapted for dairy purposes. In Trinidad they are using the Nellores for crossing with Holsteins. The objections with the Nellores were that their legs were too long and they were less docile to handle than the Sahiwal. Several of the Nellore crosses were made but tend to produce cross country runners and hurdlers. Norbrook 2nd and 4th are cows with a small percentage of Nellore blood and are the leading cows of the Holsteins and Jerseys in Jamaica. Nellores have been found to be excellent for drought and for crossing with beef cattle.

Description of the Zebu Cattle.—

The outstanding features of the Zebu are the hump, which appears on the withers, the small switch of the tail, the clean skin with sparse hairs, the drooping rump, the pointed low hanging ears and the peculiar bellow that they produce. (See Photograph of Montgomery Bull, Pusa, bred in India and used on the Government Herd at Hope Farm, Jamaica.)

History.—

The early history of the breed shows that they were selected for draft purposes while other factors were taken care of by natural selection. Cattle rearing was nomadic and thus they travelled from and to the monsoon areas and other fertile fields depending on the season. Weaklings in this way were eliminated. The steers were sold to experts for draft and no attention was paid to the female or her milking qualities. This therefore resulted in the peculiar draft type, somewhat like a Clydesdale, with strong legs, short backs, and sloping rumps which made them very active and can endure working better than the Northern Cattle. When the nomadic period was ended the animals were kept in confined areas; the breeding became promiscuous which resulted in disease and general deterioration. Because of the religious ideas, the bulls, not fitted for work, were allowed to run at will among the herd instead of being slaughtered. The frequency of drought was a great handicap to the breeders for they did not carry over any feed, thus the females were forced to rough it as best they could, which is the reason why to-day we find the Zebus are able to make a living where Northern cattle would have starved. There is at present an attempt to improve the breeds by establishing Government Farms and by distributing better bulls. The Pusa Farm in India is one of these and since the Montgomery bull which was used in Jamaica was developed by them, their methods of producing a dairy breed is given below as an example.

Pusa Breeding Experiments.

About 30 years ago the Pusa Farm began to improve the Montgomery Breed on the basis of their milking qualities. They were used for supplying milk for the officials of the Pusa Research Institute. In 1910 they reported sixty-two cows, three bulls, and 108 young ones. In 1912 rigid selection was not possible, and not until 1915-1916 when the re-establishment of the herd on its present basis it began. The herd was divided into five to avoid too close-breeding and to allow them to select all the bulls without going to outside breeders. Line-breeding was the method adopted. The standard for entry in the herd was 4,000 lbs. of milk per annum. In that year they had two cows that produced over 4,900 lbs. (including what was taken by the calf). Not until 1919 were they able to remove the calves from their dams and thus were able to give a true production of the herd.

This had a great influence on the breeding of the cows since they

went to the bull much earlier. In 1922 it was reported that cows suckling their calves freshen in about 18 months; while at this time they calved at about 14 months. In 1925 all the selected cows gave over 4,000 lbs. of milk in 304 days; the inferior ones were draughted to the cross-bred herds. In 1926 the best cows produced 7,053 lbs. of milk in 304 days. One of the great difficulties at this time was the dullness of the older bulls so that it made progeny testing very difficult. In 1930 they gave up cross-breeding and dispersed the cross-bred herd, thus concentrating all their attention on the purebred Montgomery herd. A great weakness of the purebreds was the amount of cows that had to be carried over without doing any work as they were so slow breeders and gave their first calf at about 4 years of age. In 1932 the Farm was able to lay down rules for selection on type coupled with production, while prior to this very little attention was paid to type. (See Chart showing the result obtained in production compared with the Ayrshire-Montgomery herd and the percentage in milk for the period from 1922-32.)

The result in yields shows a marked improvement over 1904. This was mainly due to selection, breeding and better feeding. The cross-bred showed about 50% more milk than the purebred Montgomery and 20% more in cows that were in milk as an average for each year. The cross-bred herd began in about 1921-22 and dispersed in 1931.

In 1920 the six outstanding animals for the purebreds compared with their dams:

	Daughters.	Dams.	Gain.
No. 1	6,457 lbs.	4,810	1,647 lbs.
2	6,312 "	5,954 "	358 "
3	5,007 "	4,228 "	779 "
4	4,454 "	4,192 "	262 "
5	4,317	3,770 "	547 "
6	4,127 "	4,406 "	279 "
Total	30,674 "	26,960 "	3,714 "
Average	5,112 "	4,493 "	619 "-14%

The following are the highest yields produced in each year in 304 days:

1917—6,200 lbs.	1925—7,053 lbs.
1918—6,360 lbs.	1928—6,360 lbss.
1919—5,654 lbs.	1929—6,590 lbs.
1920—6,457 lbs.	1930—6,648 lbs.
1924—5,777 lbs.	1931—6,187 lbs.
	1932—6,681 lbs.

Between the highest yields of each year there has been very little difference which would be expected from mass selection. With progeny testing this should improve more rapidly since at present the improvement of the Farm may have accounted for this difference. The herd's average shows an upward trend. This seems to point that type is necessary here as an animal must have the capacity for feed and the manufacturing plant to turn out a high yield which is somewhat lacking in the Montgomery.

(To be continued.)

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DEPTH OF THE CREAM LINE.

This interesting article reproduced from "The Larro Dealer" shows that the cream line of milk is not an infallible index to the butter fat content.

Editor.

Dairymen who sell bottled milk to the retail trade are vitally interested in the depth of the cream line that appears in their bottles, because housewives judge the richness of the milk by the amount of cream that they can see.

It is, however, well known that the depth of the cream line is no certain indication of the amount of butter fat in the milk, or its so-called richness. Many investigations have been made of this subject, particularly with regard to the effect of pasteurization of milk on the cream line, but I have never been able to find out why certain milk at certain times shows a poor cream line and at other times a good cream line regardless of the percentage of butter fat.

Opinions have been expressed that differences in the feed cause these differences in the properties of the milk, and after having been questioned by a good friend as to whether or not the use or non-use of corn silage would affect the depth of the cream line in bottled milk, we made an investigation at the Larro Research Farm.

We procured a number of six-inch test tubes and filled each one to a definite height with the milk from certain cows. Duplicate samples of each cow's milk were kept for a butter fat test. These samples were kept overnight in an ice box and the next day the depth of the cream

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line was measured and the percentage of the total volume calculated. Very surprising differences were found. One cow showed no cream line whatsoever, it being simply impossible to determine where the cream began or ended. This particular cow's milk tested 3% butter fat. In a duplicate test of the same cow with a butter fat percentage of 3.4 the amount of visible cream constituted 5.2% of the total.

Another cow that gave a butter fat test of 3.4 showed cream to the extent of 9.6% of the total. Another cow with a butter fat test of 2.8 had cream to the extent of 10.5 of the total.

Listing the cows in order of butter fat content in both the original test and the re-test, and indicating opposite each cow the percentage of visible cream, we have the following interesting comparisons:

Cow.	Butter Fat Test.	% Visible Cream.
435	2.8	10.5
610	3.0	0
499	3.0	8.7
543	3.1	10.4
435	3.2	10.2
499	3.2	10.4
501	3.3	10.4
547	3.3	9.6
501	3.3	11.3
514	3.4	9.6
610	3.4	5.2
581	3.4	8.7
581	3.5	8.7
377	3.5	12.1
514	3.5	7.9
547	3.6	11.4
372	3.7	11.3
543	3.7	13.9
377	3.8	11.3
372	3.8	11.3
657	4.0	13
657	4.5	13

Each cow appears on the list twice.

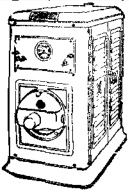
Besides the peculiar results of cow 610, we note that cow 581, with a butter fat test of 3.4 and 3.5 respectively, had a cream percentage of only 8.7, whereas cow 377 with a test of 3.5, had 12.1% of cream. Cow 514 is another one that had a low amount of cream as compared to butter fat. Cow 657 on one occasion tested 4% butter fat with a cream percentage of 13, and on another occasion tested 4.5 butter fat but had just exactly the same percentage of cream.

All the cows had silage excepting cows 514 and 543, but 514, with a high percent of butter fat, showed a lower amount of cream and 543 with a high percentage of butter fat showed also a high amount of cream. Cow 610 had silage but showed no cream on one occasion and only 5.2 on another but cow 435 also had silage with a high amount of cream. Apparently, therefore, the silage had nothing to do with the amount of cream.

The foregoing makes an interesting theoretical background but is not of any practical value to the dairyman who wants to have a good deep cream line on his milk. Apparently the cause is inherent in the individuality of the cows, and until such time as the cause can be more

definitely determined, I would suggest that dairymen procure an assortment of test tubes and put a sample of each cow's milk in each test tube, putting exactly the same amount of milk in each tube, let the milk stand for the proper length of time in an ice box, and then make accurate measurements of the amount of visible cream. If this test is repeated several times, taking both the morning milk and the night milk, it should not take long to find out which cows are like our cow 610, giving milk that shows little or no cream, and which cows are like our cow 543, which gives milk with a deep cream line. Then the cows which give milk with a poor cream line can be identified for disposal whenever the dairyman needs to get rid of some cows. By making this test from time to time he can build up a herd of cows that have the inherent characteristics of giving milk with a deep cream line.

The butter fat test is far from being a good check. Of course, the cows that give the greatest amount of butter fat are more likely to give a deep cream line than cows with a low test, but two cows giving the same test may vary considerably. I rather suspect that the characteristic involved is inherited and for that reason it might be well to use for breeding purposes only such cows as produce a deep cream line on the milk.



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NOTICE UNDER THE PANAMA DISEASE OF BANANAS AMENDMENT ORDER, 1934.

Whereas by Notice dated the 9th day of August, 1934, issued by virtue of the authority conferred on me by Section 9 of The Panama Disease of Bananas Amendment Order, 1931, as varied by The Panama Disease of Bananas Amendment Order, 1934 and published in the *Jamaica Gazette* on the 16th, 23rd and 30th days of August, 1934, I gave notice and prescribed and authorised for use in the parish of Saint Mary the modifications therein appearing of the measures prescribed by The Panama Disease of Bananas Amendment Order, 1931 for the treatment of the Panama Disease of Bananas and of infected areas and whereas certain owners or occupiers or persons having charge or management of land in the said parish of Saint Mary have failed to comply with the requirements of my said Notice: now therefore I hereby give notice that in so far as concerns any owner or occupier or person having the charge or management of land who has failed or shall hereafter fail to comply with the requirements of my said Notice of the 9th day of August, 1934, such notice shall be and is hereby rescinded and the measures prescribed by the said Panama Disease of Bananas Amendment Order, 1931 for the treatment of Panama Disease of Bananas and of infected areas shall hereafter be in full force and effect with respect to the land of which such person is the owner or occupier or has charge or managment.

Dated this 8th day of January, 1935.

A. C. BARNES,
Director of Agriculture.

ANNOUNCEMENT.

Irrigated Banana Land on Liguanea Plains.—

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(Extract from Queensland Agricultural Journal, 1st November, 1934.)

EVENT AND COMMENT.

Development of Agriculture in Queensland.

In the course of his reply in the debate on Supply in the Legislative Assembly, the Minister for Agriculture and Stock, Hon. Frank W Bulcock, said—

Perhaps the most gratifying feature of the protracted debate on this vote is the eulogy that has been paid by all hon. members on both sides of the Committee to the very excellent staff in the Department of Agriculture and Stock. As the Minister in charge of that department, I very heartily corroborate everything that has been said. Of course, there is nothing spectacular about the work that our officers are doing. The ordinary layman does not realise the research work that is being proceeded with, for instance. Such words as plant pathologist, entomologist, and agrostologist are to them but names. The men engaged in this particular phase of research are modesty personified, certainly not through any lack of capacity. They are infrequently brought in contact with the public. They are men of a calibre which ranks very highly in the scientific agricultural world of Australia. They are men of whom Queensland may well be proud. There is certainly a more generous recognition to-day of the work of these men in Queensland than perhaps was ever the case before. That corresponds with the alteration that is taking place in the public outlook in regard to primary production. There is not a member of this Committee who does not remember the time when the average primary producer was referred to in such terms as "cocky," "clodhopper," "wayback," and "rustic." Terms of that description carry some suggestion of a sneer, but fortunately they are falling into disuse. The economic factors of our national life are causing the public generally to view the farmer in his proper perspective, and while we know that that attitude has had little association with the social phases of agriculture, as a department, yet it is to the material good of the whole of the community that this change has taken place.

I have detected a new note creeping into the debate on this occasion, a note that I welcome, a note that finds a ready response in my own mind, that note being that with but few exceptions there is a more generous recognition on the part of members of the value of science in agriculture. Two hon. members suggested that the development of agriculture to-day was entirely a scientific matter. I agree, because if we review the question generally we find that practically every country in the world that has effected a progressive agricultural policy has solved the cultural problem within its own territory. The main problem is not, therefore, one of production, but of distribution. But associated with that question of production is always the question of the reduction of overhead expenditure by the application of new methods. It is true that the old maxim that was generally accepted, unfortunately, by the farming community a generation or so ago, "What was good enough for my father is good enough for me,"

has now been reversed, so that the average young progressive farmer realises the dependence on science of agriculture, the alliance between cultural operations and economic facts as apart from economic theories. These things have been recognised by the younger generation, who realise that agriculture will not reach its proper social, political, or economic plane until such time as there is a recognition by all sections of the community of their inter-dependence. The eulogy that has been accorded to the science officers of my department is very gratifying.

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(Extract from the Journal of the Royal Empire Society, December, 1934.)

THE RELATION OF ORGANIC FERTILIZERS TO VITAMINES.

By Mr. R. D. Anstead, C.I.E., M.A.,
Late Director of Agriculture, Madras Presidency.

At the meeting of the Planters' Group on November 1st, when Mr. R. D. Anstead, spoke on the relation of organic fertilizers to vitamines, Mr. W. G. Freeman, who presided, referred to the loss the Group had sustained by the death of Major H. Hely Pounds, one of its founders and a member of the Committee.

Mr. Anstead began by pointing out that manurial applications can react on plants not only by affecting the yield, but also by affecting the quality of the crop produced, and claimed that the first investigations made in the latter connection were initiated in the Madras Presidency. The discovery of this effect of manures on plants was, as is often the case with new discoveries, partly accidental. For some years a series of manurial experiment plots, sown with millet and wheat, had been maintained at the Agricultural Research Institute in Coimbatore, and in course of time it was found that the grain obtained from the different plots varied not only in quantity, but in quality, and that when seed-grain from the various plots was sown and maintained under identical conditions, a better crop was always obtained from seed from the plots treated with organic manures. Dr. McAlison, who was then working in the Madras Presidency on deficiency diseases, then experimented with the grain, and found that the nutritional value of the crop from different plots varied enormously. He found, by experiments made on rats, that the vitamines essential to growth were missing from grain grown on plots without manure, or with applications of mineral manures, whereas they were present in grain from plots treated with organic manures. Other experiments have since proved that the vitamine content of the crop is directly controlled by the amount of organic manure used. It does not necessarily follow that the highest crop is best, for a heavy crop lacking vitamines will have a lower food value than a lighter crop containing vitamines. Thus, while by no means condemning mineral manures, the lecturer was of opinion that a basal dressing of organic manure should be the foundation of all manuring schemes. The plant does not manufacture vitamines, but obtains them from the organic manure, either direct or by the agency of micro-organisms. The question arises as to the part played by vitamines in the economy of the plant. There is a growing mass of evidence pointing to the fact that plants with a shortage of vitamines are liable to disease, and, among other instances, Mr. Anstead referred to the experience of vegetable and tomato growers round Maidenhead, who yearly depend more and more on mineral fertilizers and complain more and more of the incidence of plant disease. This is due to increasing vitamine shortage brought about by the decreasing use of organic manures. Thus, the production of crops of good quality and plants resistance to disease, are both dependent on the existence of an adequate supply of organic manure, which, in these days of mechanization, is diminishing and becoming more expensive. The maintenance of adequate supplies is essential, and much work has been done in connection with this problem, which is to be dealt with by Sir

Albert Howard, C.I.E., M.A., in an address to the Group at the January meeting.

Mr. W. G. Freeman expressed his admiration of Mr. Anstead's attractive presentation of the subject. Could Mr. Anstead say whether organic manures encouraged the increase of any particular vitamine, or a general increase in vitamines? Cases existed in which an apparent increase in vitamine content appeared to have accompanied the use of mineral manures, and Mr. Freeman cited experiments on the the Winesap apple reported in the "Journal of Agricultural Science" some two years ago. In this case, when five grammes of apple were eaten per day, there was distinct protection from scurvy in the case of the manured apples; when, however, ten grammes were eaten per day, protection occurred with applies from both manured and unmanured trees. This raised the question of the amount of vitamine necessary. A crop of very low vitamine content might yet contain sufficient for all practical purposes.

Mr. Birch, a coffee planter from Kenya, said that there is a considerable opinion that the flavour of coffees is no longer what is used to be, and remarked on the fact that the use of mineral manures for coffee was now general.

Dr. Tempany, Director of Agriculture, F.M.S., said that Mr. Anstead had put forward a new point of view, and a very suggestive one. The fact of the vitamines being elaborated in the organic manure, and passing into the plant by way of the root hairs, would be very difficult to prove. He was of opinion that organic manures are of much greater importance in tropical agriculture than in temperate regions. In the F. M. S. they had a sandy horizon on a quartzite formation, which becomes infertile after cropping for a few years. Organic manures, however, bring it round.

Mr. Hamel Smith, Editor of "Tropical Life," was convinced that sugar is no longer so sweet as it used to be. Presumably the sugar planters were using the wrong manure. Irrigation, while giving good crops, was yet apt to give a crop of poor quality. He thought irrigation perhaps washed the bacteria from the soil.

Dr. Tripp, Editor of "The Empire Journal of Experimental Agriculture," said that by quality Mr. Anstead appeard to mean nutritive value. There is as yet very little quantitative evidence of the relationship between vitamines and organic manure. A further property of organic manure, additional to the presence of nitrogen, potash, and phosphoric acid, is its effect on the texture of the soil.

Mr. Insch referred to the value of organic manures in the fruit and vegetable garden.

Miss Gibson spoke of the success with which Captain Cook, on his

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third voyage of discovery, was able to keep his crew in good health by the use of malt and by obtaining fruit, fish and birds for food whenever possible.

Captain O. H. Cooke wondered whether the lecturer would ascribe the poverty of the cattle in India, to any extent, to the fact that the cattle manure is used largely for fuel and for houses instead of going back to the land? If so, would it be the case that the manure from such cattle would be of less value as a source of vitamines?

Mr. Anstead, in reply, admitted that the study of vitamines is extremely difficult and highly technical. It is present in very small quantities, and methods are complicated. The importance of vitamines is probably greater in places on the outskirts of the Empire, whose inhabitants are confined to one staple food, than at home where there is considerable variety, but even at home, the subject was now of importance from the point of view of the proper nourishment of the unemployed. Lack of vitamine caused deficiency diseases. As regards proof of the fact that vitamines are taken up by the plant, it had been done by growing the plants in water culture and adding such substances as yeast and organic manure, containing vitamines. The poverty of the cattle in some parts of India was undoubtedly due to lack of organic manure, but the value of cattle manure was not dependent on the vitamine content of the food of the animal. The action of micro-organisms was the starting point in the elaboration of vitamine in the manure, as had been shown by Rowland and Wilkinson. In China, where organic manure had been extensively used for centuries, one never hears much of plant disease.

A hearty vote of thanks was given to the lecturer.

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(*Extract from The "G-G." Review, November*, 1934.)

SIR EDWARD DENHAM AND RICE CULTIVATION.

"The Indian" *is a new illustrated monthly journal* published in London, "devoted to the economic, political, social and religious welfare of Indians all over the world."

We reproduce the following from the October number of this journal.

"The promotion of Sir Edward Denham from British Guiana to Jamaica has aroused intense interest among the Indians in British Guiana who control the rice industry. Jamaica provides a suitable market for rice and in view of the depressed condition of the industry in British Guiana, it is hoped that Sir Edward will be favourable to the development of greater trade between these two colonies, particularly in regard to rice.

Jamaica contains an Indian population of about 20,000. They are largely peasant proprietors and manual workers."

REVISION OF RULES OF THE SOCIETY.

The Standing Office Committee of the Board of Management has been deputed to go thoroughly into the Rules and Regulations of the Society with a view of suggesting such revisions as might he considered advisable with a view of bringing the Rules up-to-date, and suitable to the present needs of the Society.

We invite comments and suggestions from interested members of the Society and shall be very grateful to receive them. The matter concerns us all and no member with a suggestion should withold it

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(Extract from Queensland Agricultural Journal, 1st November, 1934.)

PASTURE IMPROVEMENT.

Mr. Bulcock then went on to speak of the work of his department in pasture improvement, and remarked:—

> The hon. member for Cooroora (Mr. Harry F. Walker) raised the question of pasture improvement. Personally, if I were asked what I could eliminate from my department and if there had to be a progressive elimination, the last thing eliminated would be our work of pasture improvement. At this juncture pasture improvement is the most important work upon which we are engaged. It means, of course, the adaptation of grasses to different soils and climatic conditions. It means a more extensive testing over that long coastline that we have, and it means an intensive search for economic grasses over this area. The hon. member for Cooroora will be gratified to know that our pasture experimental work is guided by a very excellent pasture experimental committee embracing not only officers of the department but also experienced men recruited from outside the department to assist us by their guidance and counsel, and that it enlists also the active co-operation of progressive farmers throughout the State. These instruments are being used for an intensive and vigorous pasture improvement policy. We have pasture improvement work in progress at Daintree, the most northern point in this State where dairying is engaged in. I am assured that Daintree, which is within the tropics, is the closest centre to the equator in the world where dairying is done. That alone is justification for embarking on experiments in that particular locality. If we examine the needs of every locality we find that each has some problems peculiar to itself. These problems have to be examined.

(Extract from American Hortigraphs and Agronomic Review, September-October, 1934.)

GOOD PASTURE IS CHEAPEST OF ALL FEEDS.

Good pasture is the cheapest of all feeds, says Professor E. J. Perry, New Jersey Extension Service dairyman. He states that with the necessity for making every acre return its cost of handling, dairymen are coming to a definite realization of the fact that the cow is a natural roughage consumer.

> "Only within the past few years have dairymen given much attention to how to secure and maintain a stand of good permanent pasture. The grass pastures in New Jersey have been ill-used and abused."

Professor Perry points out that farmers to-day are interested in the possibilities o the permanent pasture, and are beginning to think of it as requiring seed, fertilization, and care equal to any other field.

He adds that dairy farmers "are studying the economy of feeding rather than the limits of producing ability.

The testimony of practica dairymen indicates that feed can be purchased more cheaply from a fertilizer sack than from a feed sack —*Ben Kilgore in "The Progressive Farmer," Vol. 49 No. 4.*

(*Extract from American Hortigraphs and Agronomic Review, September-October*, 1934.)

MANAGEMENT MOST IMPORTANT FACTOR IN PASTURE MANAGEMENT.

Pasture improvement depends more on management than any other one factor. It may be advisable in some cases to top dress with commercial fertilizer, but that should be done in conjunction with cultural treatment, addition of farm-yard manures, where available, and better grazing management.

Many pastures have been sapped of their soil fertility, the stand of grass is weak and thin, and there are thousands of acres in Ontario that are of use only for a short period in spring and fall. "*The Farmer's Advocate*," *London*.

(*Extract from Queensland Agricultural Journal, 1st November,* 1934.)

EFFICIENT RAT TRAP.

An effective rat trap can be made from a kerosene tin. Cut the top away, and have about 6 inches of water in the bottom. Foat chaff on the surface of the water so that the rats do not see it, and on the chaff rest the bait—something rather strong, such as a piece of old meat. Lean a plank against the side of the tin so that the rats can climb up to the top of the tin. One drowned rat does not prevent others from jumping in. It is possible to catch quite a number of rats in this way.

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CITRUS.

It would appear to us that our citrus industry is neither large enough, rich enough, nor sufficiently organized to fight the California Citrus Growers Exchange without the intervention of Government. The American citrus industry has its home markets so well protected as not to encounter foreign competition although internal over-production and competition from other fruits keeps prices down pretty low.

Editor.

(*Extract from the Canada-West Indies Magazine, December*, 1934.)

AN INDUSTRY IN THE BALANCE.

The present position of the Jamaican orange in the Canadian market calls for comment in these columns. We shall not be exaggerating that position in saying tht the Jamaican citrus trade with Canada at this juncture appears to be in the balance. A little weight on one side or the other either will swing it into a permanent export industry of economic value to the island of Jamaica and to the intercourse of trade between that West Indian Colony and the Dominion, or, will eliminate Jamaica as a source of supply of oranges for the Canadian market.

With one of the finest crops in quality, ever produced in the Island colony, such of this season's crop of oranges ashave reached the Canadian market have received a consumer favour as has never been known in the history of this trade. This statement is founded on the comments that have reached us from all sides. At the National Made-in-Canada Exhibition held in Montreal recently, Jamaica oranges were featured—incidentally they constituted the only exhibit of West Indies produce provided us for that purpose—in an exhibition booth arranged by the Canadian-West Indian League, through the courtesy of the Canadian Manufacturers Association, sponsors of that Exhibition. Of the thousands who viewed this exhibit and commented upon it, there was not one that spoke unfavourably of the Jamaican orange. Rather, to the contrary, we overheard more appreciation of the quality of these oranges on this occasion than it has ever been our pleasure to hear. It seemed that the consuming public of Montreal had at last become Jamaica-orange-conscious. Added to this we have the comments of the retail trade who, in a survey made by this writer, with very few exceptions agreed that this year's supply of Jamaica fruit was by far the best they had ever handled and that the public were now beginning to express a preference for the Jamaica product.

On these statements we would have said that Jamaican oranges were now firmly established in this market.

But, latterly we have learned from the trade that demand has exceeded

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supply and tracing this back have been informed by the importers that there had been occasions when shipments had been curtailed by the Jamaica exporters on the grounds that prices offered in this market were considered unprofitably low. Looking into this further, we find that while some Jamaica shippers were demanding a price from eight to ten shillings ($2. to $2.50) per box Kingston, Californian shippers at the same time were taking $2.25 per box New York, a price netting them about 90c per box, California. In other words, California producers were selling their fruit at a loss simply to hold their place in the consumer market. Of course we fully realize that the California Citrus Growers Exchange is in a better financial position to meet a loss on marketing operations than is the Jamaica Citrus Growers Association, or the independent shipper in Jamaica, but the fact remains that in developing an export market of any kind the producer must be financially able, and ready when oxccasion demands, to take a loss as the cost of holding his place in the market. In other words, in establishing and holding a market for his produce, the producer must be prepared to take the "downs" with the ups."

This leads us to remark that Jamaica, having proven herself capable of producing some of the finest oranges in the world, in quantities which might well place this export on a level in economic importance with her sugar industry, the development of the citrus industry would appear to merit the paternal assistance of the Government of that Colony in a larger measure than is now granted it.

Jamaica's citrus export industry is in the balance now—the future of of Jamaica's economic growth may indeed depend on which way the scales go.

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EDITOR'S LETTER BOX.

Mr. L. V. Gray, of Stokesfield, Port Morant, writes as follows: "In a certain citrus grove, which produced some of the sweetest and st flavoured oranges in the island, there were scattered Seville orange es. These were subsequently cut out and since then the oranges nothing in comparison to the former ones. They have not got the vour and are fresh instead of sweet. Do you think the Seville anges affected this? I am of the opinion that the cross fertilization ıst have been responsible and I think this worthy of an experiment. ould you publish the paragraph in your Journal and have the opinion others? Thanks."

Editor's Note:—We publish this as being a new suggestion: we have ver heard of cross fertilization being able to affect flavours and have vays thought that only the seed would be affected thereby.

(Extract from the "G-G." Review, November, 1934.)

DON'T QUIT.

When things go wrong, as they sometimes will,
When the road you're trudging seems all uphill,
When the funds are low and the debts are high
And you want to smile, but you have to sigh;
When care is pressing you down a bit
Rest if you must, but don't you quit.

Life is queer, with its twists and turns,
As every one of us sometimes learns,
And many a failure turns about
When he might have won had he stuck it out.
Don't give up though the pace seems slow—
You may succeed with another blow.
Often the goal is nearer than
It seems to a faint and faltering man;
Often the struggler has given up
When he might have captured the victor's cup;
And he learned too late, when the night slipped down,
How close he was to the golden crown.

Success is failure turned inside out—
The silver tint of the clouds of doubt;
And you never can tell how close you are,
It may be near when it seems afar;
So, stick to the fight when you're hardest hit—
It's when things seem worst you mustn't quit.

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AGRICULTURAL STATISTICS.

Agricultural statistics are essential whenever the question of organising this industry comes under consideration.

In Jamaica we have practically no agricultural statistics which may be depended on as a guide. It is only now being thought of. Every encouragement should be given for any measures necessary in this direction. The article reproduced below gives us an idea of what is being done in other countries on this question.

Editor.

(Extract fom Hoard's Dairyman, December 25, 1934.)

A NFW CENSUS.

The United States Census of Agriculture will be taken in 1935. The law now provides that a census of agriculture be taken every five years, and it will be remembered that the last one was secured in 1930.

The 1935 census will include the name and address of the farm operator farm tenure; farm acreage, which includes all crop land, all pasture and and all farm woodland; the total value of the farm; the acreage yield and yield of each of the principal field crops and vegetables; the number of trees and the yield of each of the principal fruits; the number and value of each class of livestock; poultry and eggs; and farm population.

In order to secure complete and accurate reports from each individual farm operator in the United States, it will be necessary for every farmer and all agricultural agencies to co-operate with the federal government in this census. Never before has a census of agriculture been of greater importance. The individual farm operator's report is a confidential government report. If you should like to have in advance of the enumeration, a "sample copy" of the general farm schedule or questionnaire, write to the Bureau of the Census, Washington, D.C.

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SUGAR CANES.

(MOSAIC DISEASE.)

(Extract from Agricultural Notes, Porto Rico, October, 1934.)

The method used in transmitting the mosaic disease,—1—by means of which hundreds of second-year seedlings are tested for resistance to the disease, is a marked improvement over other artificial methods. Juice is extracted by means of a meat grinder from cane tops infected with the mosaic disease and squirted with a medicine dropper into the upper leaf whorls of healthy young cane plants. A No. 2 sewing needle, thrust rapidly a number of times through the cane plants at these places, carries some of the juice containing the disease organisms into the leaves. This method may prove of value in Puerto Rico as it is very effective; in the case of a susceptible variety, a large proportion of the cane plants takes the disease.

MARKETING NOTES.

(Extract from Monthly Report on the Produce Markets, from Gillespie Bros. and Co., Ltd., 24th December, 1934.)

Sugar.—It cannot be said that the hopes which we expressed when writing a year ago under this heading have been fulfilled, and the past twelve months will go down in the history of Sugar as a period of disappointment and delayed expectations. While it cannot be denied that the position as a whole has materially improved, inasmuch as there has been a great reduction in the dead weight of actual and prospective supplies, various adverse factors have been at work almost constantly to prevent the market from responding to the more favourable influences. One consequence of the resulting depression has been to alienate all outside interest in the article, thus depriving the market of one great element of support. Towards the close of the year there have been signs of a turn of the tide; sellers have shewn more resistance, and the hope can be expressed with some confidence that when we emerge from the season of greatest production, a change of sentiment in regard to sugar will become noticeable, and prices again prove profitable to the producer.

Closing values of raw refining Sugars are 4/3 c.i.f. for Foreign: 8/- c.i.f. for preferential 96°.

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Fair Fermented	19/-	" "
Estates Fermented	19/-	" "
Coffee—Good Ordinary	30/-	" "
Fine Ordinary	32/-	" "
Manchester-B	32/-	" "
Manchester-A	34/-	.. ..
Honey—White	2/-	per gln. delvd. Kingston
Pale	1/6	" " "
Light	1/3	" " "
Dark	1/-	" " "
Kolanuts—Sound quality, well cured	7/-	deliver Outport
	8/-	delivered Kingston
Orange Oil—Sweet, sound quality	4/-	per lb. delvd. Kingston
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PIMENTO.

The pimento market abroad has been the cause of considerable anxiety to growers and shippers, and we reproduce below a very illuminating trade report issued by Messrs. D. J. Scott & Co., of London.

The position in Germany remains a very serious drawback to the market.

Editor.

Trade Report issued by Messrs. D. J. SCOTT, & Co., London.

The Outlook and Conditions in Germany.

It has been customary with us to issue a report on the Pimento situation occasionally and especially when any features of the trade present themselves which we consider might serve to assist and guide our friends in Jamaica in the marketing of this commodity. But, before dealing with the immediate situation, we desire to draw attention to the difficulties with which the Pimento trade has been faced since July this year up to the present time, as a result of the serious economic conditions prevailing throoughout Europe and particularly in our principal market—Germany.

On the 17th of July last we issued a report on the economic situation in Germany in which we directed attention to the serious outlook for Pimento. Although we stated that it was impossible to make a forecast of what was likely to happen during the intervening months up to the present time, we indicated, from the facts we had before us, that it was advisable for our friends in Jamaica to sell their new crop whenever an opportunity presented itself. Judging from the extent of our trading in Jamaica through our Agents, Messrs. Adolph Levy & Bro., our advice must have been followed by a number of dealers and growers. The conditions after July became worse and worse in Germany and may now be considered as even more difficult. Consequently we are satisfied that the opinion we formed at the time, and did not hesitate to pass on to our friends, has been fully justified by subsequent events.

It appears that several of our neighbours both here and in Jamaica took a different view and advised the shippers and dealers to hold their Pimento for a higher market; but, although we have always had the desire to raise the price to a higher limit, having regard to extremely low price, which could not possibly give an adequate return to small growers or planters and dealers, we felt from the facts at our disposal and the representations made to us by the consuming trade in Hamburg, with whom we are closely associate , that a higher price level would necessarily reduce the volume trade which would have made matters even worse. Even our attempt to keep the price stable was negatived by certain shippers and London speculators with unsold consignments endeavouring to find a home for afloat parcels, and some thousands of bags of these had to be bought by us in London for our trade in Germany in order to save the market from a further decline at a time when the crop was in full force and the small growers and dealers were compelled to sell.

To understand the whole position and the task of creating a higher price level one must bear in mind that a system of restriction of imports has existed in nearly every European country, but in Germany this

has been carried to an extent that was undreamt of. The restriction of imports does not actually prevent anyone from sending goods into Germany, but even if there are willing buyers and the sellers will accept payment in German Currency, i.e. Reichsmarks, which cannot leave the country, sales are not permitted by the German Government without what is known as an Import License. That is to say a merchant in Germany cannot buy and dispose of a single bag of Pimento already lying in warehouse in Hamburg without a Government permit or license, and unless the merchant was an importer in the year 1931 and therefore entitled to an import quota on the basis of 5% or 10%, (which under no circumstances would he be allowed to exceed) he would not be granted a license to buy or import at all. So that, at present the large accumulation of stocks of Pimento lying in Hamburg stand no chance of being sold until the economic conditions change for the better and the Government is in a financial position to allow the necessary foreign currency to leave the country in payment.

As we have mentioned above there is no indication of a change for the better. Our Mr. Cyril C. Henriques has just returned from a visit to Berlin where he personally investigated the whole position on our behalf and in co-operation with our Clients in Hamburg. The investigations were made by him through the Commercial Secretary to the British Embassy in Berlin with special regard to the Anglo-German Payments Agreement which was entered into by the British and German Governments on the 1st of November, 1934 and which brought to an end the Anglo-German Exchange Agreement of the 10th August, 1934, under which we have been operating since that date with some difficulty. However, under the old Agreement we were successful in marketing quite a large quantity, apparently to the exclusion of all other importers who have not been able to sell any appreciable quanity.

The new Anglo-German Payments Agreement referred to above has been designed solely for *United Kingdom products* as expressed in Article 1 of the Agreement as follows:—

> "The Reichsbank will out of the foreign exchange received from German exports to the United Kingdom earmark each month for the payment of United Kingdom exports to Germany an amount equal to 55 per cent. of the average between the value of exports from Germany to the United Kingdom during the last month but one as shown by the German statistics, on the one hand, and the value of imports into the United Kingdom from Germany during the same month as shown by the United Kingdom statistics, on the other hand".

It will be noticed that no mention whatever has been made that British Colonial Products should participate as stipulated under the old Anglo-German Exchange Agreement of August 10th, 1934, and Article 2 of the new substituted Payments Agreement which reads as follows makes this abundantly clear:—

> "The German Goverment, in allocating foreign exchange for purchases of raw materials and foodstuffs which Germany has been accustomed to purchase either through the United Kingdom or direct from the British Colonies, will take no measures to reduce the customary proportions enjoyed by the United Kingdom and the British Colonies in the supply to Germany of these goods."

In co-operation with our Hamburg Clients import licenses for Pimento were applied for under this new Anglo-German Payments

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Agreement and these have been definitely refused, so that it is now left entirely to the German Government to take no steps to reduce the customary proportions of imports from the British Colonies. Unfortunately *"the customary proportions," even if adhered to,* only means the quota of 5 or 10 per cent. of the Sterling value of the 1931 imports, and the fact that so far import licenses applied for, in keeping with this quota, have been refused is not very encouraging.

The Commercial Secretary to the British Embassy in Berlin explained to Mr. Henriques that under this new Agreement the German Government is under no obligation whatever to buy Jamaica products: it is a matter that must be left entirely to their discretion. He said that if for instance China could supply Pimento and entered into an Exchange Agreement with Germany to buy her manufactured or any other goods the Pimento business would go to China. Of course we know that to be impossible but as in some German food products Cloves can be substituted for Pimento, and if Zanzibar or Madagascar entered into an Exchange Agreement with Germany the trade in Pimento would further decline to the extent that Cloves were substituted. However, we doubt the possibility of any such arrangement. Nevertheless we *cannot be blind to the fact that the situation is very serious regarding* the quanttiy of Pimento that will be allowed to be sold in Germany within the next six months or so. All Spices are sharing the same fate, but we estimate that so far the volume of Pimento imported has been comparatively greater on the average than most other Spices. This we think has been due to the low price because the quota is based on values and not on quantities and it is for the interested parties to decide if it is better to get a higher price and reduce the volume, or maintain the present level and, if possible, supply whatever is needed and permitted to be sold. Of course even then there is no guarantee that the price *can* be increased as several important factors have to be taken into consideration against which the Jamaica dealers and ourselves are helpless. In this respect one has to reckon with the London speculators. For instance there are at the present time speculators who have bought for forward shipment in January, February and March a fairly considerable quantity at the low level of prices prevailing during the past three months. These speculators will follow their usual method of endeavouring to sell the goods as soon as they are afloat, and knowing the serious condition of affairs in Germany they may not run the risk of landing the goods unsold. This manner of trading has been consistent throughout the present Season and has checked all efforts to secure a higher market level.

We have no conception of what will be the carry-over stocks in Jamaica at the end of the present Season, but it is reported here that they will be very large. We however have a fair idea of the accumulated unsold stocks warehoused in Hamburg and other European ports and they are considerably larger than we have ever known them to be, with no immediate prospects of moving them into consumption. It is impossible for anyone, not in as close association with the trade in Germany as we are and who has not carried out a personal investigation, to realise the general condition of commercial affairs in that country. The whole import trade is under strong Government Control. No stocks held in warehouses are regarded as imports until they pass through the Customs under license, so that although the warehouses may be bursting with Pimento or any other products, they cannot be sold until an import license is obtained.

The picture we have drawn is certainly a gloomy one, but it is based on the facts as they present themselves to-day. We can only hope for a change of conditions and the settlement of the financial difficulties of Germany. On the other hand if it were possible for Jamaica to conclude an Exchange Agreement with Germany on similar lines to those being concluded with other countries, a partial solution of our difficulties in respect of the marketing of such Jamaica Products as Germany can take may be found.

AUTHORISED PERSONS.

Return of Arrests to Quarter ending 31st December 1934.

St. Thomas	4
Portland	9
St. Mary	15
St. Ann	3
Trelawny	5
St. James	16
Westmoreland	4
St. Elizabeth	4
Manchester	6
Clarendon	21
St. Catherine	15

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PEANUT DISEASES.

No. 6323.

Hope, Kingston,
1st February, 1935.

The Secretary,
Jamaica Agricultural Society,
Kingston.

Dear Sir,

Peanuts from Williamsfield, St. Elizabeth.

The peanut plant submitted to Mr. Edwards is attacked by the Leaf Spot disease caused by the fungus *Cercospora personata.*

The disease is known almost wherever peanuts are grown but like many of the leaf spot diseases the damage varies considerably, being largely influenced by climatic and general weather conditions. The disease takes the form of small dark brown circular spots on the leaves and petioles. These are rarely more than quarter inch in diameter. The chief effect is to produce premature leaf fall and so reduce the crop by the loss of the leaves which manufacture the food for nut production. In severe cases the whole crop may be defoliated in a very short time. Such severe attacks are very rare in my experience in Jamaica where the disease usually appears towards the end of the growing period of the plant and when the crop is fairly well formed. The disease is most frequent in damp localities and in shady places. As peanuts are usually grown in the drier parts of the Island, it is not surprising that the disease is rarely of great consequence.

Spraying as a preventative is not an economic possibility on account of the low-growing nature of the plant, since it is almost impossible to spray the under-surfaces of the leaves. The best measures of control are long crop rotation, the selection of good seed from an uninfected source or if this is not possible, to soak the seed in ½% bluestone (Copper Sulphate) solution for half an hour before sowing.

I should like to have further details of the extent of the outbreak in question and particulars of the previous history of the land and the origin of the seed.

In conclusion may I ask you once more to remind your officers that in nine cases out of ten specimens which are submitted wrapped in newspaper or brown paper are useless for identification by the time they reach the Laboratory. Specimens should *always* be packed in a close fitting tin box so that the moisture is retained and the specimen thus arrives in a relatively fresh condition.

Yours faithfully,
(Sgd.) F. E. V. SMITH,
Government Microbiologist.

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BEE INDUSTRY NOTES.

(By H. H. COOTE, Instructor in Beekeeping.)

FOUL BROOD IN THE ISLAND.

This disease has again made its appearance in the Island and some beekeepers are inclined to treat it lightly, and in other instances almost doubting the existence of the disease, because their apiary or apiaries are not affected. If this nonchalant attitude is encouraged, I am afraid that this kind of apiarist will soon find himself a sadder but a wiser man in the near future. While this may be said of a few beekeepers the majority are taking a keen interest and are offering all the assistance possible for the eradication of the disease. The intention of this article is not to give any undue alarm, but to ask every beekeeper to be alert and pay regular attention to his or her bees, and if they discover anything unusual in their apiary to report same, at once, as immediate help will be given in case the apiary is attacked with the disease.

No beekeeper should be content with the idea that because they are not in the affected area (Kingston and St. Andrew), the apiaries will never get the disease because these are situated so many miles away. Every apiarist from Negril to Morant Point should be on the lookout. Although the Government is taking all the precautions to assist the beekeepers in stamping out the disease, and endeavouring to keep it from spreading, there may occur leakages which they could not very well detect or prevent. There are so many ways and means in which this disease can be spread, in some instances more unconciously than otherwise, that I will just give one simple illustration. Should a bottle of honey extracted from an infected apiary be given or sold to anyone leaving Kingston or St. Andrew for the country, this party may have occasion to try this honey for one of the numerous uses for which it is adapted, but in doing so, the smallest quantity may be left in the vessel used, and a bee comes along and sips enough to take home. This would be sufficient to develop and destroy the largest apiary in Jamaica, and if not discovered early may bring destruction to many other apiaries.

In 1918-19 when this disease first made its appearance in the Island there was one thing that I made special note of; that although the disease was very infectious it did not generally follow that it attacked apiaries near to one another but would skip over some in between and attack others further away. The same thing is now occurring—for instance—I examined an apiary at Kingston Gardens, one at South Camp Road, another at Brown's Town, another in the same district about 20 chains away, then another ½ mile away, as the bee flies going all the time easterly from Kingston Gardens, and the only apiary affected was the one in the centre at Brown's Town. This apiary was examined two weeks before and there was no disease, so that this indicates that you cannot know where next to expect it.

At the present time I am of the opinion that the disease has not gone beyond Kingston and St. Andrew, but no one could dare state that the infection is till confined to or will remain within the borders of Kingston and St. Andrew.

It is a fact that bees have been sold from infected apiaries in Kingston to parties in the country—perhaps when this sale was effected the

apiary may not have shown signs of disease and if disease was in the apiary the apiarist may not have known of its existence, but unknowingly harm may have been done by transporting these affected colonies to parts of the Island that hitherto had no disease.

Foul-brood is not well known in this Island but a careful beekeeper can readily detect it in the early stages. Once in an apiary it is sure to develop so that any type of beekeeper should detect this stranger when it takes charge of the apiary. First, there is the odor, a distinct and obnoxious smell, then there is the unusual appearance of the larvae. If the beekeeper is not in a position to say it is foul-brood, he at least should know such symptoms are suspicious and should report immediately so as to get the assistance necessary. Away from assistance he is open to prosecution if he does not report at once to the Director of Agriculture anything unusual in the colony that would tend to make him suspicious of disease and I herewith quote a portion of the existing Laws:—

> "Every owner or person having the charge or management of an apiary who knows of or suspects the existence of any disease in such apiary shall with all practicable speed give notice in writing to the Director of Agriculture of the fact of the apiary being so infected or suspected and shall in such notice give all information in his power as to the extent and nature of such disease. The said notice shall be served personally on the Director of Agriculture or shall be addressed to him by registered post.
>
> Where the owner or person having the charge or management of an apiary is charged with an offence under this Law he shall be presumed to have known of the existence of the disease, unless and until he shows to the satisfaction of the Court that he had not knowledge thereof, and could not with reasonable diligence have obtained that knowledge."

This portion of the Law speaks for itself, and places the onus on the apiarist whether he be owner or employee, to report if certain conditions develop or if he is suspicious of any trouble in the shape of disease in the apiary. There are drastic penalties in the Law for those who will not comply, but I don't think it is necessary to quote this portion of the Law as I feel sure that it would be a very poor type of beekeeper that would not co-operate, even at some inconvenience or expense to himself to stamp out this dreaded foe from the Island, and of course his own apiary.

My advice to every beekeeper is to try and get rid of all old combs and old queens, this will not prevent the attack of the disease but it

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ll certainly help to control it as the colony will be so refitted that if en attacked it would be able to resist the trouble in its early states. is always better to prevent than to cure, and if no disease you will ll have the advantage of a young vigorous queen heading your onies with nice new combs to store the nectar that will soon be ning along.

Young queens heading a colony are more able to resist the disease)ecially if they are from pure Italian Stock. Re-queening was vays necessary but the need may be more emphasized just now.

An extract from the Aberdeen Press and Journal is reproduced here .ow with a view of impressing apiarists in this country that the portance of beekeeping whether as a primary occupation or as a mer's side line, is being realised abroad, and we too in the colonies)uld not lag behind in our realisation of the fact.

Editor.

HONEY HARVEST SHOULD BE VERY PROFITABLE.

orthern Beekeepers ought to bestir themselves and catch the Market.

By DAVID M'CULLOCH.

Fhese engaged in the agricultural industry should maintain and :ourage "side lines" that are profitable and capable of development. ekeeper is one of them.

There are also thousands of people without an acre of land who uld find honey production an interesting and remunerative hobby, This important fact should not be overlooked— the British bee- eper, and particularly the beekeeper in the northern half of Scotland, now in a position to take possession of the British market for honey

During the World War period honey, like everything else, sold at igh price. In pre-war years, when the average production per hive s about 40 lb., the price of honey was frequently as low as sixpence, even less, per lb. in bountiful years.

ssible to Compete.—

Now that the average production can easily be raised to 100 lb. per e, it should be possible, despite the increased cost of living, to com- e successfully with the American and Dominion bee farmer whose ney, it is reckoned, costs about fivepence per lb. delivered in bulk Britain.

Comparatively little imported honey is retailed in this country under per lb. Whether the honey is sold to customers as wholly or partly ne produced is a question that could best be answered by wholesalers l retailers.

t would be a difficult task to get definite information as to the extent beekeeping in the eleven northern Scottish counties. In 1922 a sus was taken by the Department of Agriculture, assisted by Scottish keepers. All ordinary sources of information were explored. These luded consideration of applications by beekeepers for an allowance sugar for feeding their bees.

the North.

That census revealed that there were round about 9,000 beekeepers Scotland, with about 31,000 stocks of bees. More than half the

number of the beekeepers (4,860) and of the stocks of bees (17,422) were found in the counties embraced by the North of Scotland College of Agriculture.

This means that the College, through Dr. Anderson, lecturer in beekeeping, and his assistant, Mr. Andrews, has more beekeeeprs to instruct than the other two Colleges rolled into one. The equipment of the apiary at Craibstone does not impress one as being in keeping with the traditions of the College or the progressive beekeepers in the area.

While the census referred to included only about two-thirds of the beekeepers and beehives in Scotland, it is certain that since 1922 there has been a remarkable advance in the industry.

At that period the average holding per beekeepers was under four stocks. Think of the change! To-day there are northern beekeepers with over 30 and some with up to 60 stocks. And easily between a dozen and a score of northern beekeepers each now produce annually a ton or more of honey. And a ton of honey represents 2,240 lbs.

While there has been a big increase in the number and size of northern apiaries, the increase in the average yield of honey per hive has been even more remarkable. Modern management, improved pastures and other factors have contributed to this progress.

Over 300 Pounds.

At one time 40 lb. per bee colony was considered quite a respectable return. In 1921 when the late Mr. A. H. E. Wood recorded as the yield at Glassel (Deeside) Apiary an average of 215 lb. per stock many beekeepers were a trifle sceptical. To-day 100 lb. per stock is quite a common yield, and 200 lb. per hive is by no means unusual. Last year several stocks gave over 300 lb.

Hitherto the British market for honey has been somewhat limited. Honey was wrongly regarded as a luxury or a medicine to be indulged in foı quite a short season and by invalids.

The annual consumption was reckoned at about four ounces per head per annum. Honey was not regarded as a food which should appear on everyone's table all the year round, like butter and jam. A teaspoonful of honey to a child was regarded as a dainty "tit-bit."

Only One-Fourth.

To supply four ounces of honey per head per annum to Britain's population required about 4,000 tons of honey. Of this quantity only 1,000 tons were produced in Britain.

With the notable expansion in honey production which has occurred in recent years, it was inevitable that the demand for British honey at luxury prices must soon be filled, and the beekeeper was left with the surplus on his hands.

The price was bound to fall, and it has fallen considerably and rapidly. But the British beekeeper can still get for his honey at least twice the price obtained by the professional beekeepers in America and our Dominions which export honey to Britain.

We must remember that beecraft, even within the past few decades, has been revolutionised. Many people can think of the methoos of beekeeping now as like an aeroplane compared to a stage-coach or a farmer's shalt and gig in their yough.

The days of the skeppist beekeepers are not so far distant when they were pleased with a few pounds of honey per hive. Britain lagged behind other countries in appreciating the value of bee industry and applying technical instruction to it.

Britain's Chance.

Britain has a great opportunity to develop an industry which has itherto been of minor importance. Home beekeepers have shown that hey can at least equal the average production per hive of any of our versea competitors.

It should therefore be possible for our beekeepers to produce honey s cheaply as any country in the world. Once this is realised and ppreciated the British beekeeper will take possession of the British narket and the demand for British honey will be increased fourfold.

Honey is almost completely digestible. The calorific value of honey s high. In a report issued by the Ministry of Agriculture we are told hat one pound of honey is about the calorific equivalent of 30 eggs, pints of milk, 8 lb. of plums, 10 lb. green peas, 12 lb. of apples, and 0 lb. of carrots.

Medicine and Manufacture.

The medicinal value of honey for sore throats, coughs and colds is vell understood.

A considerable amount of honey is used for manufacturing purposes nd much honey finds its way into proprietary medicines, principally ough cures.

Considered from every point of view there are great possibilities or a very substantial development of home-produced honey. The narket is at our door, but much could be done for the interests of roducers and consumers if there were serious efforts to standardise he product and get its right position in our large consuming centres.

In my next article in the "Press and Journal" I shall refer to factors which have increased the efficiency of northern beekeepers.

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(*Extract from American Hortigraphs and Agronomic Review, Jany.-Feby.*, 1935.)

POTATO AND TRUCK CROPS.

EEL WORM CONTROL BY CYANAMID.

Cyanamid has been tried and from the reports it would seem that not only has this material been useful as a fertilizer, but destroys weeds successfully when applied to land in amounts varying from 600 to 900 pounds per acre, says T. F. Ritchie, Assistant in Vegetable Gardening, Canadian Experimental Farm, Ottawa, in discussing "Asparagus Growing and Marketing" in the 40*th Annual Report* of the Pomological and Fruit Growing Society of Quebec.

He adds that "the use of Cyanamid has spread like wildfire this last season as a combined weed killer and source of nitrogen. It certainly kills weeds and shows its nitrogen."

> "In Florida it has been found that when calcium cyanamid is thoroughly mixed into the soil at the rate of 1,000 pounds or more per acre, and the soil then irrigated or wetted down, the number of nematodes is sufficiently reduced to permit a susceptible crop to be grown."—*Link and Ramsay, in U. S. D. A. Miscellaneous Publication* 98.

(*Extract from American Hortigraphs and Agronomic Review, September-October*, 1934).

"CYANAMID HAS A VERY SPECIAL USE AS A WEED KILLER."

(The quantity of Cyanamid used for weed destruction in Germany is 52,000 tons in 1930. The Dutch use about 8,000 tons for weed destruction annually.)

During the last few years there has been a steady increase in the

SPRAYING AND LIMEWASHING

The "AUSTRALIA" Barrel Pump

The "AUSTRALIA" Spraying Potatoes.

Price complete - £10 19s. 6d.

The "Australia" is a powerful pump, which can be used with any cask, barrel or other container and placed in a farm cart for spraying Charlock Potatoes, and all Ground Crops. It can also be used for spraying Fruit Trees and Limewash.

As illustrated, the "Australia" Barrel Pump is fitted with a 3-row lance. There are 3 vertical lances which can be adjusted up and down and sideways in the same way as the 5-row lance (see below).

Each vertical lance is fitted with 2 double nozzles, the ones at the top of the lance spray DOWN ON TO 3 rows, whilst the ones at the bottom spray UP UNDER the same 3 rows.

The "Australia" Barrel Pump can also be supplied with a horizontal lance and 5 vertical lances, each fitted with one double nozzle at the lower end. These lances can be adjusted to spray down on to or up under the leaves and also sideways along the horizontal lance. Price complete £13 10s.

For spraying charlock or when a down spray only is required, a horizontal lance with 14 jets is supplied. This model costs £11 17s. 6d. and is recommended for SPRAYING SULPHURIC ACID.

ALL TYPES OF WET AND DRY SPRAYERS MADE AND STOCKED.

1½ pints to 130 gallons. Prices from 9s. 6d. to £147.

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evidence that, quite apart from its high value as a nitrogenous fertilizer, calcium cyanamid has a very special use as a weed killer, according to H. C. Long, of the Ministry of Agriculture and Fisheries, London, in a bulletin entitled "Suppression of Weeds by Fertilizers and Chemicals." Copies may be obtained from "The Birkins," Orchard Road, Hook, Surbiton, England. Price 2s.

He points out that it is a common practice to apply cyanamid to to the soil a week or so before sowing seed or transplanting, and it is believed that the best results are sometimes—as for sugar beet—obtained by applying it immediately before the final ploughing, or even earlier.

As a weed destroyer, however, cyanamid may be broadcast with safety on cereals, either in autumn or spring; the cereal may on occasion be somewhat browned at the leaf-tips, but will quickly recover, whereas many annual weeds, especially those having broad and rough leaves, will be destroyed. The reason for this selective action, he adds, depends largely on the fact that cereals are narrow-leafed, smooth and upright, while most weeds have broad and more or less rough leaves, with somewhat horizontal growth—so that they "hold" much more of the finely-powdered cyanamid than do the cereals.

CYANAMID IS BOTH A FERTILIZER AND A WEED DESTROYER.

Long states that cyanamid is of value as a highly-nitrogenous fertilizer, as a carrier of a high percentage of lime, and as a destroyer of weed seedlings. Showing its fertilizer value he states that in 630 experiments with spring cereals cyanamid gave an average increase of 23.9% of grain and 12.2% of straw.

He adds that J. Laird (College Farm, Hertford) informs him that he has top-dressed all kinds of crops with cyanamid in spring. He says:

> "What I like about it is that you can omit the nitrogen for your spring crops, and put the cyanamid on as a top-dressing when the corn is about 3 inches high and the Charlock and other annual weeds are in the early stages. In that case, it costs nothing for killing the Charlock, as you have the full value of your nitrogenous dressing. I have never had a crop injured to speak about, and the quick action of the nitrogen after, more than compensates for the two or three days' hindrance. I have one of the worst fields for Charlock in this country, and the cyanamid has always turned it down."

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From 6 or 7 Weeks to 4½ or 5 Months

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Feed same as above but use PIONEER BATTERY Chick Mash in place of Pioneer Chick Mash and PIONEER FATTENING MASH in place of Pioneer Growing Mash and Pioneer Laying Mash

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From 6 Weeks old on

Pioneer TURKEY Grower

Pigeons:

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POULTRY NOTES.

This is the hatching season and so the various necessities for producing good chicks with the proper chance of their growing into good producing adult stock should be carefully thought about by poultry keepers. First of all, we should think of the production of an egg of sufficiently high quality to produce a good chick. All eggs are by no means the same worth in this direction nor, in fact, even in the nutritive direction.

To get a good hatching egg we must first of all look to the hen that lays it. The first step in this direction is proper selection of the breeding hen and even more careful selection of the breeding cock. These breeders should be healthy, full of vigor and well matured. Then, they should be fed with properly balanced rations, have access to sunlight and green feed. They should be well supplied with the mineral elements in the ration and they should be free of the many parasites which affect fowls, both internal and external, such as lice, mites, fowl ticks and the various descriptions of intestinal worms.

In other words, the fowls should be dewormed, deliced and their living and sleeping quarters properly disinfected so that both the birds and the houses will be clean both in and out. It is only by this means that the top notch vitality necessary for the breeder can be attained and this vitality transmitted to the egg. A strong chick full of vitality is easier to rear and these can be produced by the methods recommended above.

TO SELL.

Mahoods' Rhode Island Red Cockerels (imported) seven months old, also Australorp Cockerels of same age. All excellent birds. Mate up your pen with one of these for results.

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PURE BRED WHITE LEGHORNS PLYMOUTH ROCKS
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All imported or from imported stock. Carefully selected foundation stock for those interested in starting a Poultry Farm. Well mated pairs, trios, and Pens for Breeding. Hatching Eggs from selected Pens of proven layers, 90% fertility guaranteed. Day old chicks from above breeds.

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(*Extract from the Farmer and Stock Breeder, December* 17, 1934.)

Protection for the Poultry Farm.—

Speaking at Preston, Sir Oswald Mosley aid, "Obviously we must stop the dumping of foreign eggs. The poultry industry presents great opportunities for expansion if only we proceed on the right lines. First of all, the poultry farmers must be protected, just as men engaged in other branches of farming must be protected. We can produce at home all the eggs we need and we ought to do it."

The paragraph might have been spoken for our conditions, so apt it is.

Editor.

FOR THE BEST IN POULTRY

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BRANCH NOTES.

All Reports received are acknowledged in this section of the Journal. This month we have only been able to put in print Notes from Branches who have not yet had a publication this year.

Branch Secretaries should **write on one side of the paper only.**

[Ed.

ST. ANN: Brittonville.—Bye-monthly meeting was held during January. There was an apreciable number of members, visitors and the juveniles of the community present. Members and visitors were heartily welcomed by the President. The minutes of the December meeting were read and confirmed. The Secretary who attended the Half-Yearly meeting along with Instructor C. V. Atkinson, gave a full account of that meeting. The Instructor instructed the juveniles present on the Juvenile Society. Necessary steps for its formation were launched. A vote of thanks was accorded him. Minor matters were dealt with. Authorised Person reported all correct. Meeting terminated with the singing of the King.

Clarement P.O. C. THOMAS, Secretary.

Bamboo.—Meeting held 26th Jan., 1935. Present: The Instructor, Mr. C. V. Atkinson, President, Mr. P. N. Munro, Messrs. John Rickman and Ernest Tait, 1st and 2nd Vice-Presidents, the Secretary and quite a few members. The President wished the members a very succesful year agriculturally. This was ably supported by the Instructor. The Corn Competition for the branch was fully discussed, the Instructor giving all the necessary information. He was asked to draw up rules governing the Competition, and to submit same at the next meeting. Donations to be asked for, for prizes. Correspondence was read and dealt with. A bun made from breadfruit was presented to the House by Mr. J. A. Mothersill, baker of this district. This was served around and was fully appreciated by all. Minor matters were dealt with, and the National Anthem concluded the meeting.

Bamboo P.O. L. J. ROBT. WALKER, Secretary.

Belfield.—The Instructor Chas. D. V. Henderson visited the district on January 8th 1935. As it was holiday season many members were out of the district and so no regular meeting was held. The Instructor visited the holdings of Messrs. Helps and Somers and gave a general talk on Agriculture, stressing specially the care of livestock.

Belfield P.O M. L. RENNALLS, Secretary.

Epsom.—Meeting held January 2nd. Present: W. G. Sampson, President; Fred. A. Edwards, Secretary and seven other members. After confirmation of minutes, matters arising therefrom were dealt with. Authorised Person W. Shirriffe reported all correct. A short discussion took place. A few minior matters were dealt with and the meeting terminated.

Annotto Bay P.O. FRED. A. EDWARDS, Secretary.

ST. MARY: Marlborough.—Meeting held 22nd January. Present: Mr. C. Henderson Agricultural Instructor; Mr. Z. Ffrench, President presiding; Mr. O. K. Murray, 1st Vice-President, 12 others, 15 children of the day school, two visitors and the Secretary. Meeting opened with prayer by Chairman, who extended a warm welcome to all. Minutes of last meeting read and adopted. Resolution of condolence was unanimously passed in connection with the death of the late Mr. E. S. Bent, 1st Vice-President of the Branch. Secretary was instructed to forward copy of the resolution to the bereaved relatives. Mr. J. Z. Johnson reported on the Half-Yearly Conference held at Highgate. Report was received with thanks. Report of Half-Yearly meeting was deferred. Authorised Person W. McKoy reported 1 attempted arrest. His badge and handcuffs were in good Order. The Instructor addressed the meeting on different questions of the day. Dealt with the matter of gardening among the day school boys. Advised them on the sowing of seeds, the beds, the planting, etc. He advised the Teacher to form a Juvenile Branch of the J. A. Society to evince more interest among the younger ones. The *Teacher promised to do so. A hearty vote of thanks was given the Instructor. Meeting* decided to recommend Mr. L. D. McFarlane to be an Authorised Person. Roll call was next taken, other matters discussed and the meeting terminated with the National Anthem.

Pear Tree Grove P.O. D. AUG. FORD, Secretary.

Turnberry.—Meeting 22nd Jany. Present were: Mr. Z. Rawle, President; Mr. S. Allen, 1st Vice-President; Miss I. Prestwidge, Assistant Secretary; Instructor Coke, about twenty regular members and a few visitors. The President extended a warm welcome to the members, visitors and the new teacher, who was subsequently elected Secretary. The question of Authorised Persons was brought up for discussion, and it was decided to call on the two "old" ones to resign, while two "new" ones would be appointed. The Instructor gave a few brief remarks regarding the recent Half-Yearly General meeting. He stressed the importance of the development of the citrus industry, and made forceful suggestions in connection with the citrus programme for the district. The method of "hill" preparation was explained by the Instructor. On the suggestion of Mr. Abrahams, the No. 62 Parochial Road was dealt with, and following a brief discussion it was decided to form a Commitetee to draft a petition to be sent to the Parochial Board. The Middlesex Water Supply was also considered. Plans for the year, on the Instructor's suggestion, were adopted, and after dealing with minor matters, the meeting terminated with the National Anthem.

Guys Hill P.O. E. L. Welds,
Secretary.

MANCHESTER: Old England.—Meeting held 29.1.35. Present: Mr. H. E. Wright, 1st Vice-President presiding, six other members and the Instructor, Mr. H. A. Darby. The minutes of the last meeting were read and confirmed. As matters arising therefrom, the Instructor asked what is meant by citrus losing bud leaves, which was explained. He then gave instruction on the matter. The Black Ant pest came in for discussion; the Instructor advised the use of cyanogas. Cane growing was also brought up and the Instructor advised on the matter. A lecture on the proper care and pruning of coffee, followed by illustration on the black board was given by the Instructor, after which a vote of thanks was accorded him. The Instructor was in the district from early in the day, visiting boldings; be gave demonstrations in coffee pruning. Other matters were discussed, the roll called and the singing of the National Anthem brought the meeting to a close.

Old England P.O. C. P. Watson,
Secretary.

TRELAWNY: Deeside.—Meeting held 2nd Jan., 1935. Present: Mr. M. N. Thompson, Agricultural Instructor, fourteen members and a number of visitors. The president, Mr. J. E. Haye occupied the chair. The minutes of the last meeting were read and confirmed. Dealing with matters arising out of the minutes, the matter of the boar came up for discussion, but owing to the absence of the Secretary the matter was deferred for the next meeting. Matters re Half-Yearly General meeting were discussed. A discussion on the finance for the delegate and on the resolutions for the Half-Yearly meeting followed. Three Authorised Persons were present: Mr. S. Johnson reported an arrest, the others reported no arrest nor complaints. It was decided that the Corporal at the Wakefield Police Station be invited to the next meeting to lecture to the Authorised Persons. The Instructor advised preparation of land for the planting of coffee and he further gave instruction as to how the planting should be done in the banana fields. After this the meeting terminated with the singing of the National Anthem.

Deeside P.O. E. A. Morle,
Secretary.

WESTMORELAND: George's Plain—Meeting 14th January, 1935. Present: Mr. R. C. Tavares, President; the Instructor, Mr. F. W. Kelly; six members and many visitors. The Instructor gave a very interesting and practical talk on the cultivation of Coffee, and its preparation for the market. The president suggested the getting of an Experimental plot where practical work could be done, before the eyes of the community. It was also suggested that a party of members from this branch should attend the May Pen Agricultural Show. Theree visitors gave in their names for membership. The singing of the National Anthem brought the meeting to a close.

George's Plain P.O (Miss) C. A. King,
Secretary.

Grange Hill.—Meeting held 24.1.35. Rev. J. J. Thomas presided and 21 other members were in attendance and Mr. F. W. Kelly, Instructor. Minutes of the last meeting were read and confirmed and matters arising from it dealt with. Water supply and the bridging of the Bulstrade stream were discussed. A resolution regarding blood test free by the Government passed the house. The remedy for worms and diorrhoea in goats was given by Instructor Kelly who also promissed to spray the goats infested with lice, on his next visit in February. He addressed the meeting mentioning the May

Pen Show, Ginger competition and the growing of cabbages. Meeting closed with the National Anthem.

Grange Hill P.O. C. C. CAMPBELL, Secretary.

ST. THOMAS: Middleton.—Meeting held 23rd January. Present were Messrs. U. A. McLaren, Instructor, J. E. Johnson, 2nd Vice-President, presiding, eight others and the Secretary. The minutes of the previous meeting were read and confirmed. The chairman brought forward a resolution re the recent demise of Mr. C. L. D. Morgan late chairman of the St. Thomas Branches Associated. The Secretary was instructed to send a letter of condolence to his widow. As arising from the minutes, the Social in connection with the branch was discussed. The Committee was asked to work up the Social, so that it may come off at the Annual meeting in April next. The one root system of treating bananas, affected with Panama disease, came up for discussion but was deferred. Authorised Persons reported. The Instructor in his address pointed out the danger of constantly burning the land, and robbing the soil of its fertility. He encouraged members to develop their own holdings. Vote of thanks was accorded the Instructor and the meeting adjourned.

Seaforth P.O. E. S. BLAKE, Acting Secretary.

PORTLAND: Rock Hall.—Meeting held 14.1.35. Present: Mr. Jos. W. Dunn (presiding), Instructor. G. R. Graham, 14 members, 3 visitors and the Secretary. Correspondence was dealt with, and the branch decided to purchase an Essex boar pig from M. W. Harper-Watson. The Instructor in his address encouraged the branch to increase its membership in 1935. He dealt fully with the Corn Industry, and exhorted the members to pay great attention and care to their cultivations. Authorized Persons Downer and White reported an arrest each. Suggested that Parent Society be asked to appoint Authorized Persons as valuators in the district. Several important matters were discussed and the meeting adjourned in the usual way.

St. Margaret's Bay P.O. L. MORGAN Secretary.

Regale.—Meeting held January 22. Present: A. W. Campbell, President, the Vice-Presidents, 9 members, one visitor, the Instructor and the Secretary. Meeting opened with prayer, after which the minutes of the last meeting were read and confirmed, and matters arising therefrom discussed. The delegate from the Half-Yearly Meeting gave a statisfactory report, and was highly commended. The Instructor gave a very educative address on the benefits derived from Agriculture, and also on Farming. He was accorded a vote of thanks. The matter of the Protection of the Water Supply was discussed. A resolution was framed to be forwarded to the Parent Society. The meeting terminated with the singing of the National Anthem.

Spring Hill P.O. (Miss.) G. I. CAMPBELL, Secretary.

St. George.—Meeting held on the 19th Jan. Present: Messrs. H. I. Williams, Vice-President, presiding, seven other members, Instructor D. A. Jones, Miss I. Williams, acting Secretary and Rev. W. J. Thompson, Vice-President of the Board of Management of the Parent Society. The Chairman wished the branch much prosperity during 1935 and opened the question of Crown Land. A lengthy discussion followed and a resolution dealing with the matter was unanimously passed. A very interesting address was given by Mr. Jones. He showed many hindrances to successful cultivation. Crops were not grown at the right time; the soil was not suitable, enough labour and intelligence were not put in; old methods were still closely followed, work was not consistent and there was no combination of animal husbandry. He urged for a larger membership of the branch. The Rev. Mr. Thompson spoke forcefully on Agriculture and showed how crops not marketable could be used to raise animal manures which would enrich the soil and so bring in money. He stressed the importance of the subject as every section of the community depended on it. The speakers were heartily thanked. There was a short discussion on the water supply for Buff Bay and it was decided that the Parochial Board be asked to move in the matter. Reports from "Authorised Persons" were received and the meeting adjourned.

Buff Bay P.O. I. WILLIAMS, Acting Secretary.

CLARENDON: Frankfield.—Meeting held 26th Jany. The President U. Theo. McKay, Esq., the Secretary, the Agricultural Instructor Mr. Graham, the Plant

Disease Inspector and twelve members were present. The minutes of last meeting were read and confirmed and matters arising therefrom dealt with. The President extended a hearty welcome to all, and exhorted all present to do their best to make 1935 an outstanding success. He next introduced the new Instructor Mr. Graham who attended the branch meeting for the first time and alluded to him as a fitting successor of Mr. M. N. Thompson. Messrs. Martin and Wainwright also spoke in the same strain. In replying the Instructor thanked the gentlemen for their kind references and gave valuable hints on (a) the fertility of the soil; (b) rearing of small stock; (c) curing of coffee. He also advised the keeping of accounts for each holding. The Instructor was heartily thanked. The President submitted a scheme for putting in practice the valuable address of the Director of Agriculture delivered at a branch meeting here months ago. Mr. A. McLeod moved that steps be taken to secure a driving road to Lampart district. The President suggested that the matter be put on the Agenda for next meeting. A Committee consisting of Messrs. Dunkley and E. Lewin was formed to deal with the "Social" for the meeting in March. Meeting ended witb the National Anthem.

Frankfield P.O. W. T. EDWARDS,
Secretary.

Pleasant Valley.—Meeting held 15th January. Present were: Mr. C. C. Flyter, President; Mr. A. L. Virtue, Agl. Instructor; 42 others including 24 members as well as many school children. The minutes of last meeting were read and confirmed. The Instructor then gave an inspiring address. He spoke also on the ravages of P. D., the seville orange as best suited for budding purposes and the great interest the Govt. has shown in establishing citrus nurseries. At this juncture Major Moxsy chairman of the Clarendon Parochial Board, Mr. R. O. Terrier, M.P.B., Captain Eaves, and others joined the meeting. Major Moxsy spoke on Agriculture in many phases. He advised taking all the help the Instructor can give. A cordial vote of thanks was conveyed to the Major. Mr. Terrier next addressed the meeting and wished for the stability of the Society as well as its continued success. Mr. Scott a visitor gave an oration on the word "Grow". After a few preliminary remarks he said "G stands for go, R. for right, O for on and W for working"" and this was his wish for the Society. Go right on working for the betterment of the Society. Captain Eaves also gave a few encouraging words. The Delegate's report on Half-Yearly General meeting was deferred for next meeting. Authorised Persons reported all correct. After the Roll Call the meeting terminated with the king.

May Pen P.O. (MRS. A. A. FLYTER,
Secretary.

ST. CATHERINE: Princessfield.—Meeting held 28th January. There were present, the President, 2nd Vice-President, Secretary and a few members; also the Agricultural Instructor Mr. C. S. Byles. The minutes of the previous meeting were read and confirmed. Matters arising from the minutes were dealt with. The President in his address exhorted the members to consider their method of goat-rearing. He pointed out that it is the prevailing opinion in some places to rear goats without giving them water; but said that this practice was contrary to the plans of nature. He instanced the losses in kids that were occuring in the district at the present time because of the lack of milk and asked how could there be milk when the goats didn't drink water. He also referred to the possibility of improving the breeds. He further dealt with the improvement of the breeds of pigs; and stated that it didn't appear a difficult matter if efforts were made by the Society. The Instructor endorsed the statements made by the President, and advocated a larger membership for the Society which would certainly help in the achievements referred to by the President. He also dealt at some length with the coffee industry giving hints that could be of service to the growers. The meeting was brought to a close hy the singing of the National Anthem.

Bog Walk P.O. P. G. GRAHAM,
Secretary.

Springfield.—Bye-monthly meeting held 22nd January. There was a large turn out of members and visitors. Mr. B. A. Forrest presided. The President said that as there was no suitable place to hold meetings it was considered advisable to ask the Rev. J. G. Peterkin for the loan of the Class House for the afternoon. It was agreed that in order to keep the Branch alive the Society should build a Hall for the holding of meetings. A committee was named to deal with the matter. The delegate to the Half-Yearly General Meeting gave his report for which he was accorded a vote of thanks. The singing of the King brought the meeting to a close.

Carron Hall P.O. E. ROSS,
Assistant Secretary.

ST. ELIZABETH: Brighton.—Meeting held 27.12.34. Present were Rev. S. J. Swaby, J.P., who presided, many other members, several visitors, Hon. P. W. Sangster, and the Secretary. The Hon. P. W. Sangster, M.L.C., then addressed the members. He showed that too much of foreign capital was invested in Jamaica, and that the British Fiscal Policy was not conducive to our economic progress. Excessive duties hampered our trade and native industries should be developed and encouraged. The Hon. Gentleman emphasized the fact that Dr. Hudson was willing to treat with the Parochial Board of St. Elizabeth re a roadway through Spring Vale. He was thanked for the address. The three Authorised Persons present reported O.K. Four new members were enrolled. Minor matters were dealt with, after which the meeting adjourned.

Brighton P.O. C. H. BLAKE,
Secretary.

Pepper.—Meeting, 16th January. Present: Instructor Lynch, President, Secretary and 20 other members. Among the visitors were Hon. P. W. Sangster, Mrs. Sangster and Teacher Maxwell of Nain. Minutes read and confirmed. Report of delegate to the meeting of the Federated Branches held 24th November, was submitted. The Instructor then gave his address. He advised members to plant more food stuffs so that some can be stored away for times of scarcity. Mr. Maxwell who was secretary of the Gilnock Show Committee being called upon gave certain information concerning the Show. Meeting terminated with singing of National Anthem.

Pepper P.O. M. A. ATKINSON,
Secretary.

Middle Quarters.—Meeting held 3rd January. Present: Messrs. J. Salmon, President, A. Gayle, Vice-President, Mrs. C. L. Hutchman, Assistant Secretary, six other members, several visitors and the Secretary. As arising from the minutes Mr. N. C. Lewis made some explanations regarding the resolution in connection with the Rice Growers Association. Letter from the Parochial Board re the Dettingen-Lancewood Road was submitted. Two authorised Persons reported all correct. Further matters concerning Authorised Persons were dealt with. The Instructor then gave his address. He pointed out how important it was for each and every one to make a resolution for their betterment during the ensuing year. He suggested that the members of this Branch resolve to support, strenghten and maintain their Branch; that all aim to work together and learn all they can about Agriculture; and last but not least all were told to make use of as much mulch as possible in view of the threatening drought. The storing of corn and manufacture of native cornmeal was discussed. Minor matters were dealt with, after which the meeting terminated by the singing of the National Anthem.

Middle Quarters P.O. H. L. W. WILSON,
Secretary

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JAMAICA AGRICULTURAL SOCIETY.

Other Reports Received.

Branch.	Date of meeting.	Attendance.	Business.	Secretary.
St. Mary.				
Albany ..	16.1.35	10	Routine matters. Address by Instructor Henderson.	N. P. Clarke.
Baxters Mtn. ..	15.1.35	10	Routine matters. Authorised Persons. Address by Instructor Henderson.	R. J. Lawson-Ricketts.
St. James.				
Bickersteth ..	30.1.35	11	Routine matters. Juvenile Branch.	Leo. A. Spence
St. Elizabeth.				
Kilmarnock ..	8.1.35	15	Report on nursery. Authorised Persons. Arrangements re Social. Address by Instructor Wray.	J. E. Monteith
St. Catherine.				
Bellas Gate ..	14.1.35	88	Sale of bananas by weight. Corn competition. Authorised Persons. Report from delegate on Half-Yearly General Meeting.	A. A. McCurdy.
Victoria	17.1.35	—	Authorised Persons. Report on Half-Yearly Meeting by delegate. Address by Mr. T. J. Cawley.	(Miss) M. L. Burrell.

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Jamaica Agricultural Society.

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The following are offered *for sale.*

Description Produce or Livestock.	Price.	Name.	Address.
Pure bred and half bred Essex and Berkshire Pigs, ready for delivery	On application	W. Harper Watson	St. Margaret's Bay.
Sheep manure· reasonable prices, excellent for vegetables and gardens	..	Secretary	J. A. S.
Goat manure	3/- 100 lbs.	Secretary	J.A.S.
Indian Kale Plants	On application	Secretary	J.A.S.
Montgomery–Guernsey Bull about 4 years old, bred at Hope, would exchange for Red Poll Bull or Cow in calf.	On application	Miss M. F. Purcell	Gibraltar, Annotto Bay.
One Brown-Swiss Bulkin, 18 months old and one Montgomery-Jersey Bulkin, 21 months old.	On application	Secretory	J.A.S.
Large Australorp Cockerels, (Imported) 7 months old	To be arranged	Miss Doris Miller	"Beechwood," Lyndhurst Road, Cross Road.
1 Saanen Ram, pure bred, 1 year old.	Two Guineas	Mrs. F. C. Jackson	Gayle
14 Marsh Seedless and Silver Cluster Grapefruit plants	9d. and 6d. each	W. G. Heron	Hartlands.
Valencia Orange plants	9d. each		
Parson Brown plants	6d. each		

The following are required—

Description Produce or Livestock.	Price.	Name.	Address.
One pair used wagon wheels in good condition, 3 ft. 10 ins. high, 1½ins. tyres.	Please state.	Rolland Shaw	Alligator Pond P.O.

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Department of Agriculture.

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REMITTANCES.—The full value of all orders must be pre-paid. In making payments, cheques and postal orders should be made payable to the Director of Agriculture and crossed Bank of Nova Scotia. Postage stamps are accepted only for smaller amounts than 6d.

COST OF BOXES.—The costs of boxes used in packing plants will be added to each account at the following rates:—

Up to	7 plants	6d.
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"	30 "	1/6
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FRUIT TREES AND PLANTS.—Price 1½d. each, except where otherwise stated, delivered free at any railway station.

Star Apple, Otaheite Apple, Jack Fruit, Nilgiri Hills Blackberry plants from beds; Coco Plum, Naseberry, Granadilla, Tangierine, Guava, Java Plum, Cherimoya, Papaw, Mangosteer, 1/-; Grape, 4½d.

ECONOMIC PLANTS.—Price 1½d. each, except where otherwise stated, delivered free at any railway station.

Ylang-ylang (Cananga odorata), Cinnamon, Annatto, Breadfruit, 9d.; Sarsaparilla.

ORNAMENTAL SHADE TREES AND SHRUBS.—Price 1½d. each, except where otherwise stated, delivered free at any railway station.

Bauhinia Galpini; Brownea coccinea, Couroupita guianensis (Cannon Ball Tree), Dillenia indica, Michelia Champaca (Champac Tree) Palms, several species; Poinciana regia (Flamboyant), Posoqueria longiflora, Saraca indica (Asoka Tree), Tecoma spectabilis (Poui), Jacaranda mimosæfolia, Spathodea campanulata, Cassia nodosa, 4½d. each, Triplaris surinamensis, 4½d. Ficus lucida 1/6. Cassia grandis 1½d.; Thuja 9d. each. Ficus elastica 1/6 each. Murraya exotica; Cordia sebestena.

FREE ECONOMIC PLANTS.—Pithecolobium arboreum (Wild Tamarind), from beds; Diospyros discolor (Ebony), W. I. Cedar, Mahogany.

NOTE.—Plants are conveyed free by railway. They are guaranteed in perfect order when sent out to the Gardens, but the Department is not liable for any loss or damage in transit. Plants will be delivered at Mail Coach Office at the discretion of the Department. Plants will not be sent to private residences.

THE JOURNAL

OF THE

Jamaica Agricultural Society.

The more people do the more they can do; he who does nothing renders himself incapable of doing anything; while we are executing one work we are preparing ourselves for undertaking another.

Vol. XXXIX. MARCH, 1935. No. 3.

BOARD OF MANAGEMENT.

The regular monthly meeting of the Board of Management of the Jamaica Agricultural Society was held at the office of the Society, 11 North Parade, Kingston, on Wednesday, the 6th February, 1935, at 11.30 a.m. There were present: Mr. T. J. Cawley, First Vice-President, presiding, Messrs. Sidney Barton, H. E. Lewis, T. P. V. McDaniel, U. Theo. McKay, D. D. Phillips, W. Harper Watson, W. H. W. Westmorland, T. R. Williams and Major G. B. Pease; Mr. P. St. L. Bacquie, Supervisor of Instructors and the Secretary, Glaister Baxter.

Apologies for Absences.—

Apologies for absence were submitted on behalf of the Hon. A. C. Barnes, Director of Agriculture, who was absent from the Island, also from Messrs. C. O. Cover and Rev. W. J. Thompson.

Confirmation of Minutes of the previous Minutes.—

Copy of the minutes of the last meeting having been sent to each member of the Board, they were taken as read and on the motion of Mr. Williams, seconded by Mr. Phillips, they were confirmed.

Matters arising out of the previous Minutes.—

(a) *Letter from His Excellency the Governor acknowledging congratulations.*—The following letter was read:—

King's House,
9th January, 1935.

Dear Sir,

In reply to your letter of the 7th of January, I am directed by His Excellency to request that you will be good enough to thank your Board of Management for passing a resolution of congratulations on the recent honour bestowed on the Governor by His Majesty the King. His Excellency desires me to say how much he appreciates this courtesy on the part of the Jamaica Agricultural Society.

Yours truly,
(Sgd.) Jermyn Rushbrooke,
Commander, R.N.,
Private Secretary.

The letter was noted.

(b) *Letter from Instructor Lynch.*—A letter from Instructor Lynch was submitted, thanking the Board for their kind expressions of sympathy with him in his recent bereavement.

This was noted.

(c) *Letter from C. S. O. re Importation of Vermifuges for stock.*—The following letter from the C.S.O. was read and noted.

No. 141/55. 25th January, 1935.

"I have the honour to refer to your letter dated the 7th January, 1935, and to inform you that the Government is advised that vermifuges for stock can be admitted under Item 16 of Schedule 2 of Law 4 of 1925, as "remedies for disease of animals."

2. The ruling referred to in paragraph 2 of your memorandum of the 17th December, 1934, was in connection with a specific drug imported by a Medical Practitioner for use in his practice. This would not be covered by the item referred to above and it was so ruled on that occasion.

(Sgd.) A. R. DIGNUM,
for Colonial Secretary.

(d) *Letter from C.S.O. re Issue of Storm Warnings.*—The following letter was read:—

No. 5449/32. 25th January, 1955.

"I have the honour to acknowledge the receipt of your letter No. 57, dated the 14th January, 1935, forwarding a copy of a resolution passed at the last meeting of your Society in regard to the issue of storm warnings, and to state that the Government regrets to be unable to reconsider the decision conveyed to you in the letter from this office, No. 5449/32, dated the 14th December, 1932.

(Sgd.) A. R. DIGNUM,
for Colonial Secretary.

This was noted.

(e) *Letter from C.S.O. re Foul Brood Disease of Bees.*—The letter was read as follows:—

No. 6455/34. 22nd January, 1935.

"I have the honour to acknowledge the receipt of your letter, C.S.O. No. 56, dated the 14th January, 1935, transmitting a copy of a resolution unanimously adopted by the Board of Management of your Society, in regard to the Foul Brood Disease of Bees.

2. I would invite your attention to the Order published in the Gazette Extraordinary, dated the 15th November, 1934, and to inform you that the Government is taking all steps possible to safeguard the industry.

(Sgd.) A. R. DIGNUM,
for Colonial Secretary.

This was noted.

Estimates.—

Letter from C.S.O.—On the suggestion of the Chairman it was unanimously agreed that this important item listed lower down on the Agenda having arrived in the office after the Interim Agenda had been sent out, be dealt with.

The Secretary read the following letter:—

Nos. 7427/34. Colonial Secretary's Office,
Jamaica, 31st January, 1935.

Sir,

I am directed to refer to your letter No. 53, dated the 28th December, 1934, forwarding the Estimates of Revenue and Expenditure of the Jamaica Agricultural Society for the year 1935-36.

2. The Governor is not satisfied as to the necessity for the appointment of an Assistant Secretary. His Excellency considers that with the number of Instructors, etc., who are available to you, you should be able to secure the services of one or other of these Officers when necessary to assist in the work of the Office. His Excellency is unable to approve of the appointment.

3. It is not clear whether the Instructors were appointed on an incremental basis or not or whether the proposal is now to put them on an incremental scale. If the latter, His Excellency does not consider that this should be approved in 1935-36, but should await an improvement in the financial situation.

4. It appears to His Excellency that while travelling is of course of the first importance,

it requires to be more carefully organised and supervised in respect of your Society's field workers.

5. His Excellency has approved of the grant to your Society of a sum of £11,000 (including £500 for the Bee Industry), in respect of 1935-36, provided that the increase over the grant in 1934-35 is spent on works in connection with the new addition to the premises for storage purposes, etc. His Excellency is unable to approve of any further allocation to your Society and the Society should satisfy Government how it is proposed to spend the additional sum.

(Sgd.) A. S. JELF,
Colonial Secretary.

On the motion of the Chairman, seconded by Mr. McKay, the Board went into Committee to discuss the matter.

When the Board resumed they confirmed the following decision arrived at in Committee: That a Committee consisting of Messrs. Cawley, Williams, Barton and McKay interview the Governor to press the needs of the Society in relation to the Estimates.

It was decided that this Committee should meet at 9 a.m. on the morning of the 19th February.

Statement of Accounts.—

(a) *Statement for December.*—The Secretary stated that a copy of this had been forwarded to each member of the Board.

(b) *Statement for January.*—The following was submitted:—

STATEMENT OF ACCOUNTS—JANUARY, 1935.

Receipts.		Estimates.			Total.		
		£	s.	d.	£	s.	d.
To Subscriptions		175	0	0	137	17	0
Affiliation and Journal Fees		175	0	0	171	8	6
Advertisements in Journal		200	0	0	111	10	4
Bank Interest and Sundries		10	0	0	12	6	6
Miscellaneous		10	0	0	6	1	9
Bee Industry Sales		30	0	0	26	9	5
Sales Department Profits for 1934-35		400	0	0			
Government Grant		9,500	0	0	7,916	13	4
Grant for Beekeeping Industry		500	0	0	416	13	4
Appropriation from Sales Department Surplus		516	15	0	..		
		£11,516	15	0	£8,799	0	2
Balance from 31st March, 1934		..			1,877	4	8
Nethersole Presentation Fund		..			0	2	0
Refund of Advances		..			444	0	0
Hire of Show Equipment		..			9	14	0
Shows A/c—Deposits and Other Receipts		..			29	12	6
Seeds Trading Account		..			3,119	12	8
					14,279	6	0
Less Expenditure per contra		..			13,977	7	3
Balance		..			301	18	9
Cash in hand		£31	0	0			
Cash at Barclays Bank, Deposit A/c	£500						
Less Overdraft, Current A/c	400	100	0	0			
Cash at Royal Bank of Canada, Current A/c		170	18	9	301	18	9

Expenditure.		Estimates.			Total.		
		£	s.	d.	£	s.	d.
By Personal Emoluments—							
Secretary and Office Staff	..	2,014	5	0	1,777	13	6
Instructors and Supervisor	..	7,482	10	0	6,460	6	2
Instructors' Course at Hope	..	125	0	0	127	18	8
Instructors' Contingencies	...	100	0	0	99	13	1
Secretary's Office and Special Travelling	..	100	0	0	86	5	3
Printing and Stationery	..	100	0	0	113	5	8
Printing and Issuing Journals and Reports	..	750	0	0	611	1	7
Rent and Rates	..	58	0	0	49	2	0
Rent of Telephones	..	27	0	0	22	2	8
Postages and Telegrams	..	10	0	0	8	8	1
Office Furniture and Equipment	..	15	0	0	10	17	4
Incidentals	..	50	0	0	48	14	6
Auditors' Fees	..	25	0	0	25	0	0
Library Books	..	10	0	0	10	8	8
Experiments and Livestock Subsidies	..	100	0	0	50	15	11
Show Equipment: Maintenance and Repairs	..	10	0	0	7	12	0
		£10,976	15	0	£9,509	4	11
Beekeeping Industry	..	500	0	0	475	6	1
New Office Equipment	..	40	0	0	61	17	2
		£11,516	15	0			
Shows A/c, Printing, etc.	..	..			30	18	3
Gratuity, Mrs. Barclay	..	..			46	0	0
Advances to Instructors	..	..			461	19	10
Nethersole Presentation Fund	..	.			9	0	0
Holdings Improvement Competition	..	..			194	1	8
Local Competitions	..	..			9	14	1
Plant Disease Control	..	..			26	10	0
Storm Relief A/c. Refund to Government	..	..			106	0	10
Seeds Trading Account	..	..			3,046	14	5
					£13,977	7	3

(Sgd.) DONALD MACDONALD,
Accountant.

(Sgd.) GLAISTER BAXTER,
Secretary and Treasurer.

Resolutions.—

(a) *Mr. McKay re Immature Bananas.*—Mr. McKay moved the following resolution:

"That whereas a very appreciable loss is sustained in the fruit trade, to wit, bananas, by the reaping of immature stems and whereas Government has shown its interest in the industry by giving financial support and at times to the loss of general revenue:

"Be it resolved that the Board of Management of the Jamaica Agricultural Society approach the Government to arm the Inspectors of Agricultural Produce with such powers to enable them to prosecute persons offering for sale for export immature bananas."

Mr. McKay spoke on the resolution which was seconded by Mr. Westmorland and supported by Mr. Barton.

Major Pease, Messrs. Lewis, Williams and McDaniel spoke in opposition to the resolution.

The Chairman then put it to the vote and it was lost, Messrs. McKay, Barton and Westmorland voting for and Messrs. Williams, Lewis, Phillips, McDaniel and Major Pease voting against its adoption. Mr. Harper Watson did not vote.

(b) *Mr. McKay re Agricultural Credit.*—Mr. McKay moved the following:—

Whereas agricultural credit is of first importance to the advance of the agricultural interests of the island and whereas a Committee has been appointed by the Government to inquire into and report upon this matter and several months have elapsed and the Committee has not reported:

Be it resolved by the Board of Management of the Jamaica Agricultural Society, that the Government be asked to dissolve the present Committee and appoint another in its place.

Mr. McKay spoke on the resolution, which was seconded by Mr. Barton.

Mr. Cawley who was a member of the Committee, gave a resumé of what had been done so far.

The resolution was then put to the vote and carried.

Communications.—

(a) *Letter from C.S.O. re Jippa-Jappa Hat Industry.*—The following letter was submitted:—

Nos. 7328/34. 23rd January, 1935.

"I am directed to refer to your letter No. 48, dated the 18th December, 1934, and to inform you that the Government regrets that it does not see any way in which it can assist the Jippa Jappa Hat Industry.

2. It seems to the Governor to be largely a question of marketing and advertisement."

(Sgd.) A. R. DIGNUM,
for Colonial Secretary.

The letter was noted and the Secretary instructed to forward a copy to the St. Catherine Branches Association, from which the resolution on the matter emanated.

(b) *Letter from C.S.O. covering Proclamation re Importation of fruits and vegetables from New Zealand.*—Letter No. 333/35 dated 25th January from the Colonial Secretary was submitted, covering a Proclamation adding New Zealand to the list of countries from which Jamaica may import fruits and vegetables.

This was noted.

(c) *Letter from Postmaster re Post Office for Johns Hall (Clarendon)*—Letter No. 19256/34 dated 31st December, 1934, was submitted from the Postmaster for Jamaica stating that in regard to the resolution from this Society suggesting that a Post Office should be established at Johns Hall in the parish of Clarendon, consideration will be given to the request in common, with others provided an amount is passed by the Legislative Council for the opening of new Post Offices during the year 1935-36.

This was noted.

(d) *Letter from Instructors Association re resolutions and deputation*—The Secretary read a letter from the Instructors Association requesting that the Board grant an audience to a deputation of Instructors, consisting of Instructors Lynch, McLaren, Hastings, Martin, Hanson, Shirley and Coke to place before them the following matters:—

1. Pensions to Messrs. Banks and Buckley, retired Instructors.

2. The Provident Scheme. 3. The Grading of Instructors. 4. The obtaining of supplies for Instructors on the co-operative principle. 5. Loans to Instructors. 6. Extra travelling to Instructors during hurricane periods. 7. The payment of transfer expenses.

Explanatory notes on each of the above subjects were also submitted.

On the motion of Mr. Barton, seconded by Mr. McKay, it was decided that the Board should receive the deputation.

On the motion of Mr. Williams, seconded by the Chairman, it was decided that the whole Board as a Committee, receive the deputation on the morning of the March meeting, immediately after the business of the Instructors' Committee be disposed of.

(e) *Letter from Springfield Branch (St. Catherine) re Hall for meetings.*—Letter from Springfield Branch was submitted, requesting that a contribution list be opened by the Society with the view of assisting the Branch in obtaining funds for the construction of a building in their district for holding agricultural meetings.

The Board decided that the request could not be entertained.

The Secretary was directed to make enquiries through the Instructor as to what could be done in the direction of obtaining the use of a schoolroom for holding Branch meetings, and the Chairman volunteered to do what he could in the matter.

Date of March Meeting.—

The Secretary stated that the usual day for the monthly meetings of the Board was the first Wednesday, but in March next this would be a Public Holiday.

It was unanimously decided that the March meeting be held on the second Wednesday, the 13th March.

Pimento.—

Mr. Lewis brought it to the attention of the Board that the pimento industry in Manchester was likely to be wiped out on account of blight which recently attacked the plant. Although the Department of Agriculture had attributed the attack to weather conditions, with exactly the opposite conditions the blight was still very much in evidence.

The Secretary was instructed to refer the matter to the Department of Agriculture.

Matters referred from Half-Yearly Meeting.—

(a) *Resolution re location of best varieties of Jamaica orange*—The following resolution was submitted:—

Whereas from time to time we come across Jamaica grown oranges which are almost seedless, very early, and nearly perfect in quality; Be it resolved:—

1. **That steps be taken to ascertain what trees are bearing such fruit.**
2. **That this be done by means of Parochial Prize Competitions to be followed by further Competitions to be arranged among the winners of the Parochial Competitions.**
3. **That a condition of competing shall be that the Government or the Society should be free to purchase at a fixed price any tree which appears to be of outstanding merit.**
4. **That budwood should be available to people desiring to start or improve their groves and trees.**
5. **That the Competition be held in September in order to secure early maturing strains.**

After discussion on this subject, the Secretary was asked to prepare scheme outlining a method of meeting the requirements of the resolution, for the information and consideration of the Board.

Mr. Lewis asked if it was in order for him to introduce the subject of the amendment of some of the new Citrus Regulations which were creating a hardship on the people.

The Chairman suggested to Mr. Lewis that he give notice of motion on the subject for the next meeting.

Mr. Lewis accepted the suggestion and promised to prepare a resolution.

(b) *Investigations re Avacado Pears.*—The following resolution was submitted:—

In view of the extent to which avocado pears are grown in the Island, and the considerable loss sustained by the lack of proper marketing arrangements: Be it resolved that the Jamaica Agricultural Society in conjunction with the Department of Science and Agriculture be asked to make investigations with a view to arriving at (a) Standard variety of these pears, (b) Proper method of cultivating, and (c) Marketing.

The Secretary was instructed to submit this matter to the Planning Committee.

(c) *Organizing and Financing Shows.*—The following resolution was read:—

Whereas it is felt that properly organized and comprehensive Agricultural Shows are of considerable assistance to the agricultural interests of the community: and whereas there appears to be at present no definite policy being followed by the Jamaica Agricultural Society in the organization of such Shows—Be it resolved that the Parent Body be asked to give this question immediate consideration and to formulate a scheme working in conjunction with the Director of Science and Agriculture for holding properly organized Agricultural Shows in definite areas at reasonable regular periods and that the responsibility for organizing and financing Shows under such a scheme be undertaken by the Parent Body with the assistance of local Committees. Be it resolved also that any scheme formulated shall embrace Rules and Regulations for such Shows and for the holding of local and Juvenile Shows so that a definite and carefully considered policy may be followed throughout the Island for the benefit of its agricultural progress.

The Board decided to refer this matter to the Show Committee.

The Board adjourned for luncheon.

On the resumption there were present: Mr. T. J. Cawley, in the chair, Messrs. McDaniel and McKay and Major Pease; the Supervisor of Instructors and the Secretary.

As the attendance did not constitute a quorum it was decided to continue the Agenda and ask for adoption of the decisions when there was a quorum.

Office.—

(a) *Secretary's Report on travelling for January.*—The Secretary reported on travelling done by him during January.

This was noted.

(b) *Application from Miss Dias for one month's leave during March* was granted on the Secretary's recommendation.

(c) *Leave. Miss M. Robertson (sick).*—The Secretary stated that Miss M. Robertson had been absent from office from 18th January to 2nd February, due to illness. She had submitted a Doctor's certificate.

This was noted.

Messrs. Williams, Lewis, Watson and Phillips came in.

The proceedings so far were then duly adopted, on the motion of Mr. McKay, seconded by Mr. McDaniel.

Committees.—

(a) *Report from Bee Industry Committee.*—The Secretary read the following:—

30th January, 1935.

To the Board of Management:

BEEKEEPING INDUSTRY.

Gentlemen:

Your Beekeeping Committee met on 24th January, 1935, without a quorum, and there were in attendance, Hon. A. C. Barnes, Director of Agriculture; Mr. D. D. Phillips and the Secretary, Glaister Baxter.

Your Committee recommends that Dr. Stephen Lockett, Government Veterinary Surgeon, should be appointed a member of the Beekeeping Committee.

Representations were made by the Director of Agriculture and Dr. Lockett with reference to unsatisfactory actions on the part of the Bee Instructor, Mr. H. H. Coote, and after carefully considering these representations, your Committee begs to recommend that a Committee of Enquiry be appointed to go into the question of Mr. Coote's conduct

with regard to the outbreak of Foul Brood Disease of Bees, and also in regard to his connection with commercial enterprises for the marketing of honey, etc.

(Sgd.) GLAISTER BAXTER,
Secretary.

On the motion of Mr. Phillips, seconded by the Chairman, the report was adopted, and the matter was referred to the Bee Industry Committee for report to the March meeting of the Board.

(b) *Report from Instructors Committee.*—The following was submitted:—

To the Board of Management: 6th February, 1935.

Gentlemen:

Your Instructors' Committee met this morning and recommend that Instructors Atkinson and G. R. Graham be granted one month's leave of absence. This leave conforms with the schedule.

(Sgd.) GLAISTER BAXTER,
Secretary.

On the motion of Mr. McDaniel, seconded by Mr. Williams, the report was adopted.

(c) *Report from Live Stock Committee.*—The Secretary read the following:—

Hon. A. C. Barnes, 4th December, 1934.
Chairman, Government Committee on Cattle
and Dairy Industries, Kingston.

Sir,

In response to your invitation to submit our recommendations with regard to the improvement of the cattle and dairy industries of the Colony, we have pleasure in doing so

2. Representatives of this Society will be very glad to attend on you at your convenience if you consider that this would be of any assistance in the matter.

3. We find that the beef industry cannot be assisted by protective tariffs against the importations of competing oversea products for the following reasons:—

(a) That the present importations of oversea meats are negligible and are marketed at higher prices than what would be considered profitable for our local products.

(b) With reference to protection against salt beef and other preserved meat products, we find that as the portion of the carcass used for producing salt beef is a relatively small portion of the whole, that it is not likely that sufficient salt beef could be made in Jamaica for the present demand, and further, that the price realizable, allowing for processing is less than is now being realized, allowing similar cuts of fresh meat in the markets and which cuts are now readily saleable.

(c) We find on enquiry from reliable sources that the cost of production of beef in Jamaica is between 30/- and 35/- per 100 lbs., and that when the retail sale price averages less than 6d. per lb. it is unprofitable to the breeder.

(d) We find that the slaughtering and charges on animals between breeding pens and markets are extraordinarily high, being approximately—

Slaughtering	20/- per head
Transportation	5/- " "
Sales Expenses, Butcher's Services ..	25/- " "
Total	£2 10/- per head.

We recommend that careful enquiry be made into the possibilities of the reduction of Slaughter House Fees and Railway transportation charges, with a view to making this portion of the breeder's and butcher's expenses less than it is at present. It has been stated on reliable authority that the Railway profits on a car load of cattle appears to be more than that obtained from a Third Class passenger car.

(e) We also recommend that the Government be advised not to accept tenders for beef at prices lower than the established cost of production, as thereby butchers are encouraged to artificially depress the price of cattle to the breeder.

(f) We recommend some system for the licensing and registration of butchers, whereby they will be called upon to keep records of their killings, and that some system of control established as to the quality of the animals to be butchered.

(g) We recommend that abattoirs be established in each parish adjoining the principal markets and that the sales in such markets must be from stock slaughtered in these abattoirs and that inspection for condition and disease be established in connection with these abattoirs. That modifications of such abattoirs for country places and breeding pens in the nature of killing sheds properly sheltered and drained and available for Government sanitary inspection and control be permitted. That in case of accidents some exception be made to the regulation, but reports should be made in such cases to the Police Station. That the transportation of meat be made in appropriate vehicles.

4. Our Committee feels that adequate assistance to the Dairy Industry is likely to be the most efficient form of assistance to the beef industry, as this would afford oppor-

tunity to breeders to control the volume of beef production within the limits of the purchasing power of the community.

(a) We also feel that it is quite possible and practicable to produce a milch cow in Jamaica with an average of between 3,000 and 4,000 lbs. of milk per annum, which cow would be an efficient producer of butter and be able to compete with New Zealand imported butter even at the present depressed prices.

(b) We are however of the opinion that the percentage of such animals now existing in the Colony is insufficient for producing the Island's requirements of butter and so the industry is unable to compete at the present moment with imported butter.

(c) We strongly recommend that the dairy industry be materially assisted thereby giving an opportunity to achieve the standard of efficiency which will enable us to produce the Island's requirements of butter eventually at competitive prices.

(d) We consider that a minimum period of six years is required for dairy cattle breeders to produce animals approximating the required efficiency.

(e) We recommend that certain safeguards be adopted by the Government to produce from any assistance given to the industry the desired results. The safeguard we suggest is organization on the part of dairymen to enable the establishment of central creameries which will be provided with the minimum amount of milk necessary for the economical production of butter, such creameries would best be operated on the co-operative principle. We consider the minimum amount of milk per day for economical production to be in the region of one thousand quarts. That inspection of dairies and their approval and also approval of dairy sires in use by assisted concerns by made by Government Officers and be a part of the safeguards placed on such butter manufacturing concerns, above referred to.

5. We recommend the following as means of assistance to the dairy industry:—

(a) Credit if necessary up to 50% of the cost and erection of manufacturing plant of approved type and approved location. Such approval to be obtained from the Director of Agriculture and the organization also to be approved by him.

(b) Temporary subsidy for a period of six years to allow of the necessary time for the industry to arrive at the required standard of efficiency which would allow it to compete with world prices on its own merits.

(c) Government provision of high-class proven dairy sires on a loaning plan for rapid improvement of dairy cattle.

(d) That a subsidy rather than tariff protection, be given, due to the fact that the butter consumers of this country represent only about 10% of the population, a great number of which are of the smaller salaried classes which at the present moment are unable to bear any increased imposts of taxation.

(e) We suggest as barely adequate, the following subsidy:—

For the first three years 6d. per lb. on all butter marketed by approved butter-making factories.

The next two years 4d. per lb.

The next succeeding two years 2d. per lb.

After this period no subsidy.

(f) That a quota system be adopted whereby the importation of butter may be controlled to ensure against dumping in our local market.

(g) We recommend also as a means of further assistance to the cattle industry and also to other livestock industries that free entry of all implements, equipments, feeds not produced in the Island besides such as animal compound and mill by-products of high protein contents, be admitted duty free.

6. We draw the attention of your Committee to a few salient facts in connection with the live stock industry of Jamaica which we deem of importance as proving the value of the industry to the Colony and its worthiness for assistance.

(a) The industry in Jamaica produces approximately £400,000 per annum and if placed in a position to take care of the butter and condensed milk requirements of the Colony would be worth three-quarter million pounds per annum.

(b) The dairy industry seems to us at the present moment to be of even greater importance than its actual money worth to the country due to the fact that its expansion and prosperity would react most favourably on the present depressed beef situation and also be a stepping stone for encouraging the cheap and efficient production of milk without which there is no possibility of providing for the condensed milk needs of the Colony, which market is worth a quarter million pounds per annum.

We are, Sir,

Yours faithfully,

(Sgd.) T. J. Cawley
" H. E. Lewis
" Sidney Barton
" W. Harper Watson
" T. R. Williams
" G. Seymour Seymour
" Glaister Baxter,

Members of Jamaica Agricultural Society Live Stock Committee.

Mr. Williams moved that the report be adopted.

This was seconded by Mr. Lewis.

Mr. McKay asked certain questions about the butter section of the industry which were answered by the Secretary.

After some discussion Mr. McKay moved as an amendment to Mr. Williams' motion that the adoption of the report be deferred to the next meeting of the Board.

This was seconded by Major Pease.

The amendment was put to the vote and carried, four members voting for and three against it.

The Secretary was directed to forward copies of the report to the members of the Board.

Diseases of Plants and Animals: Insect Pests.—

(a) *Panama Disease of Bananas: (i) Report for December, (ii) Report for the year* 1934.—The Secretary laid on the table the reports on the incidence of Panama Disease of Bananas for the month of December and for the year 1934 and stated that copies of both reports had been sent to individual members of the Board.

Industries.—

(a) *Citrus—Letter from Mr. W. Chevallier Syer.*—The following letter was read:—

Royal Mail Building, Kingston,
14th January, 1935.

"The citrus industry of Jamaica is of such importance to the colony that everyone interested is glad to know that the Government has led the way in establishing citrus nurseries of budded plants of varieties which are known to be acceptable in markets abroad.

"I think that we are all aware also of the keen activities of the Agricultural Department and of your Society in propaganda work to improve the cultivation, handling, picking and transport of citrus in the island. But might I suggest that with all the good work that is being carried on in Jamaica to produce varieties of citrus that are desired in markets abroad, this work is of little value unless Jamaica will adopt some form of local marketing organisation. It will be remembered that in October of 1932 a Fruit and Vegetable Conference was held in Jamaica, when Mr. Stockdale, Agricultural Advisor to the Secretary of State for the Colonies was Deputy Chairman of the Conference. That Conference made many recommendations and I have a copy of the report in my possession. It would be a matter of keen interest to citrus growers in the colony to learn if your Society has approached the Government with a view to ascertaining if any action of value to growers is likely to be taken as a result of that Conference. It is now a matter of a year and a quarter since that Conference sat, and whilst it is understood that two members have been appointed from Jamaica to represent this colony at future Conference, there are several matters which require early attention if Jamaica is to make anything out of citrus. First, the shipping freights are entirely out of proper proportion, and all those who handle citrus know that these high freights prevent regular shipments and prevent growers from obtaining a reasonable return.

Secondly, without some system of a local marketing organisation, with Jamaicans competing against each other, both in the island in purchase and in sales prices abroad the results are lamentable to the industry. If some form of regularising shipments and pooling of information were adopted in Jamaica each shipper's expenses would be reduced and by working together regular prices would be obtained. Are the members of your Society satisfied with their citrus results, and if not, would it not be as well to discuss and adopt some island marketing scheme which would bring in better returns. It would appear that so long as each grower and shipper in Jamaica continues to play a lone hand, citrus will not prosper with us, and I should be glad to hear if the Society has taken, or proposes to take some action with regard to marketing our citrus at home and abroad.

(Sgd.) W. CHEVALLIER SYER.

After some discussion it was decided to thank Mr. Syer for his letter and to inform him that the matter was receiving consideration.

Small Stock Subsidy.—

(a) *Application from Wood Park and St. George (Blackstonedge) Branches re Rabbits.*—The Secretary stated that a pair of Belgian Hares costing £6 had been imported through the office on account of these Branches, and the application was for a grant of Three Pounds.

It was pointed out that subsidies were granted for sires only.

After some discussion it was decided that an amount of £1 10s. be allowed.

(b) *Application from Labyrinth and Cascade Branches re Ram.*—Letter from Instructor Coke stated that the Branches had arranged to purchase an imported ram for £5 and were asking the Board to grant a subsidy for this animal.

The matter was deferred as the Board did not consider the information before them enough to warrant a decision, and instructed the Secretary to make investigation and put further particulars before them at the next meeting.

Shows.—

(a) *Letter from Spaldings Branch deferred fom last meeting.*—The Secretary stated that this application from the Spaldings Branch for Easter Monday, 1936, had been deferred from the last meeting pending the result of a resolution on the Agenda of the Half-Yearly Meeting on the organizing and financing of Shows throughout the Island. The resolution had been passed and was referred to the Show Committee of the Board of Management.

The Secretary also stated that he had advised the Spaldings Branch that the Dry Harbour Mountains Show was already scheduled for Easter Monday, 1936, and that it would be to their advantage to choose another date.

The Board approved of the action of the Secretary.

(b) *Letter from Darliston requesting Secretary's attendance.*—Letter was submitted from the Darliston Branch, requesting the Secretary to attend their Show on the 24th May, 1935, and asking that he take a Clerk to assist him with the work of the Show.

The Board agreed to the Secretary making arrangements for this, provided the Branch was agreeable to paying the travelling expenses involved.

(c) *Letter from Gilnock Show Committee re Grant.*—Application from the Gilnock Show Committee for a grant for their recently held Show, was submitted.

The Board regretted that they had no funds from which such a grant could be made.

Authorised Persons.—

(a) *Return of Arrests for Quarter ending* 31.12.34.—The summary of the arrests made by Authorised Persons during the quarter ending 31.12.34, was placed before the Board, and the Secretary was directed to publish same in the Journal.

Branches, Resolutions.—

(a) *St. Andrew Branches Associated re (i) Sale of small stock by weight to butchers.*—The resolution asked that the Branches be circularised to sell small stock to butchers by weight instead of by bartering.

The Board regretted that they did not see their way to agree to the request.

(*ii*) *Allotment of road work to labourers.*—This resolution stated that there was dissatisfaction with regard to the allotment of work to

labourers on both main and parochial roads of the Island, the local people being ignored and outsiders employed.

The Board decided that they could take no action in this matter.

(b) *Westmoreland Branches Associated re Telephone Office at Sheffield.*—Resolution requesting that the Postmaster be asked to make Sheffield Post Office either a Telephone or Telegraph Office was submitted.

The Secretary was directed to forward same to the Postmaster for Jamaica.

(c) *St. Elizabeth Branches Associated re* (i) *One Root System.*—The resolution asked that it be suggested to the Director of Agriculture that the one root system of treating Panama Disease of Bananas be adopted in St. Elizabeth.

The Secretary was instructed to forward the resolution to the Director of Agriculture.

(ii) *Telephone Office at Fyffes Pen.*—This resolution asked that the Government be requested to establish a telephone service at the Fyffes Pen Post Office.

The Secretary was directed to forward it to the Postmaster for Jamaica.

(d) *Wakefield re (i) Water Tables and Market (ii) Gas Lamp, (iii) Speed Limit Signs.*—Resolutions from the Wakefield Branch were submitted, asking that the Government be asked (i) to put in concrete water tables, and asphalt the thoroughfares in front of the shops and Market at Wakefield; (ii) to put up a gas lamp in the village, and (iii) to erect speed limit signs in that section.

The Secretary was directed to forward the resolutions to the proper authorities.

(e) *Rock Hall (Portland) re (i) Protected stream at Daniel's River.*—This resolution asked that the Parent Society approach the Parochial Board in this matter.

The Secretary was directed to forward the resolution to the Parochial Board.

(ii) *Authorised Persons as Valuators.*—This resolution asked that the Parent Society sanction the appointment of the Authorised Persons as Valuators in the cases of the destruction of cultivations by straying animals.

The Board decided that this could not be done.

(f) *Grange Hill re Blood Tests.*—This resolution stated that owing to the number of blood diseases in the Island requiring blood tests before effective treatment, and whereas these tests were considered expensive, that the Government be asked to make these blood tests free to all.

The Secretary was directed to forward the resolution to the Superintending Medical Officer.

New Members.—

On the motion of Mr. McKay, seconded by Mr. McDaniel, the following were elected to be members of the Society:—

Mrs. G. Bell, 2 Upper Elletson Road, Kingston.

V. Henriques, Imperial College of Tropical Agriculture, Trinidad.

Capt. U. J. A. Stebbings, Llonderry Est., Dominica, B.W.I.

Walter Roescher, 147 Windward Road, Windward Road P.O.

W. D. Soutar, c/o Jamaica Mutual Life Assurance Coy., Kingston.

N. D. Pagden, Central Registry, Messrs. Cooper, McDougall and Robertson, Ltd., Berkhampstead, Hers., England.

Albert Karram, 66½ Constant Spring Road, Halfway Tree.

[O]ther Business.

(b) *Letter from E. Gibb offering Amity Apiary for sale.*—A letter was [s]ubmitted from Mr. E. Gibb of Sav.-la-Mar, offering the Amity Apiary, [o]riginally owned by the Society, for sale to the Society, for the purpose [o]f re-establishing the Hilroy Apiary, affected by Foul Brood Disease.

The Secretary was directed to thank Mr. Gibb for his letter and to [i]nform him that the Society was not at present considering the purchase [o]f bees.

(c) *Letter from Bamboo Branch re grant for Corn Competition.*—Letter [f]rom the Bamboo Branch was submitted asking the Society for a [d]onation towards their Corn Competition.

The Board regretted that this could not be granted as there were no [f]unds available.

(d) *Notice re Panama Disese of Banana Amendment Order* 1934. The [S]ecretary submitted notice of the 8th January, 1935, issued by the [D]irector of Agriculture, stating that owners of lands in St. Mary who [f]ailed to comply with the notice of the 9th August, 1934, regarding [P]anama Disease of Bananas would forfeit the privilege of the one root [s]ystem and have the nine root system reinstituted.

The Secretary was directed to publish the notice in the Journal.

(e) *Letter from Banana Industry Aid Board re Loans.*—Letter dated [5]th February, 1935, was submitted from the Chairman of the Banana [I]ndustry Aid Board asking that the Society assist through its Instructors [u]sing their influence, to persuade persons who had loans from the Board [t]o make payments.

The Board decided that they were unable to comply with the request.

The meeting then adjourned to Wednesday, March 13th, 1935, at [1]1.30 a.m.

GOVERNMENT SAVINGS BANK

OUR BANK

An account may be opened with the small sum of 1/-

It will surprise you how these small amounts grow. You plant the shillings and watch how they grow to pounds.

114 Branches throughout the Island.

Free Postage and Registration to Head Office make it easy to plant the shillings.

EDITORIAL COMMENT.

Red Peas a £20,000 per annum crop:

In small communities such as ours, quite small industries assume ıportance. For instance, no one *will question the importance* of e Bee Industry with a total annual export averaging around £14,000. ıe Government gives recognition to it, by entrusting this Society th *a special grant of £500 per annum for its encouragement and* provement and has spent respectable sums for the control of certain its diseases. The Bee Industry and certain other minor products ᴈm constantly before the public mind whilst others equally important ɔm point of value at least excapes notice. We propose mentioning ɜt one. That is Red Peas.

The volume of import rose suddenly in 1933 practically doubling elf and has continued increasing in quantity since.

There is a duty on Red Peas amounting to 1/- per bushel from foreign ırces and 9d. per bushel from empire sources. Practically all we ported came from foreign sources.

The Red Peas *imported* amounted to, in 1933, 32,689 bushels and in Ɜ4 for 9 months (The latest figures we were able to obtain) 30,183 shels. The value of the imports in 1933 amounted to £17,247. ·w *this sudden increased importation has coincided* with owering of values abroad and it must be a fact that some £10,000 ich used to flow into the pockets of small farmers have ceased to so in the past two years. The average prices of imported Red Peas the wholesaler is around 11/- per bushel and it would appear to us ıt the small man is falling down on a matter of improved methods of ɔduction if he is unable to compete. Formerly he usually realized an ɜrage price of 16/- per bushel, sometimes 24/- per bushel and never ꞩ than 12/-. He must have found *it unprofitable* to produce it at ꞩent current prices or he would not have dropped out the markets. ꞩ have been preaching the answer to such problems which is an ɔrovement in methods for *surely it is practicable* in areas well *suited* the crop to produce it at present prices with a margin of profit. We l that this is so although our saying so might bring phials of wrath our *devoted head*.

*N*e should cry out for new minor crops but not supinely permit those already possess to be taken from us, because we do not endeavour to ɔrove our methods. We suggest the following avenues of *improve*-nt and means towards this end.

a) Selection of heavy bearing healthy seed.

b) Fertilizer trials.

c) Larger acreage to offset small margins of profit.

'en bushels per acre is possibly the present average good crop which ·ks out at about a 1 to 20 return for the seed planted; surely this ld be improved on and increased by at least 50% which would give ıcre yield of 15 bushels worth £7 10/- in not more than three months.

Vhen corresponding with Advertisers, mention the Journal of the

JAMAICA AGRICULTURAL SOCIETY.

If you are a planter you know!

You know that careful preparation of the soil, careful selection of the seedlings, careful maturing of the plants, result in the best crops. That cane juice extracted from the finest cane, grown under meticulous supervision, makes the best Rum. And you know that that is how CHARLEY'S RUMS are made, at Innswood.

For every occasion there is a

CHARLEY'S RUM.

There is ROYAL RESERVE (fifteen years old) for the Special Occasion, WHITE LABEL for the best Cocktails and Highballs, SPECIAL PUNCH RUM for mixing the world-famed PLANTER'S PUNCH as served at CHARLEY'S PUNCH BOWL. Even our lowest-priced Rums are good and pure.

EDWIN CHARLEY Distillers & Bottlers

KINGSTON, JAMAICA, B. W. I.

EXTRACT FROM ADDRESS DELIVERED BY HIS EXCELLENCY THE GOVERNOR AT THE MEETING OF THE HON. LEGISLATIVE COUNCIL, 19TH FEBRUARY, 1935.

The figures for exports of our principal products are of considerable importance as upon these primarily depend the prosperity of the Colony.

Bananas show a gratifying increase from 10½ million stems to nearly 16 million, sugar, rum, grapefruit, cocoa, pimento, though the prices have fallen considerably ginger—a remarkable increase of 43% in quantity and 108% in value— and honey show increases, while coffee by over 2½ million lbs. logwood and cigars have decreased in export quantities.

The import duty on cigarettes and leaf tobacco has fallen to £86,000 from £135,000 in 1931 and the excise duty collected in 1933-34 was £27,000 as against £21,500 in 1930-31. As I have previously stated the position with regard to the principal sources of revenue as affected by local production is a serious factor in the financial position.

Our trade depends to so considerable an extent on our agricultural position that the two heads can be dealt with together.

The Director of Agriculture reports in optimistic terms, that there is a complete recovery from the damage inflicted by the storms of 1932 and 1933 and that it is anticipated that the exports for 1935 may even reach a record figure.

He also estimates the coming sugar crop at 76,157 tons—a further increase of 4,000 tons on the crop for the past season which was 6,650 tons more than the estimate.

While the export figures for coconuts show a slight decrease the local demand by oil and soap factories has done much to improve local prices. The position of the Coconut Producers' Association is certainly stronger.

That of the citrus growers has been receiving the special attention of Government. It is hoped that representations made may result in improved conditions in freight and that the New Zealand market may also bring about a closer co-operation between growers to their general advantage.

The experimental Cold Storage Plant to be operated by the Department of Agriculture is now being erected and should be available for use early in the new financial year.

The report of the Live Stock Commission should be laid before Council at this Session.

During last year weather and feed conditions have been most favourable for our livestock and their general health has been good, but prices for locally produced meat of all kinds have materially decreased, and dairy products have also declined, but to a less degree.

The pastoral potentiality of the Colony is great, but an improved animal husbandry is necessary for its more profitable utilization.

(a) In the 5 years (1929-1933) approximately 27½ million pounds (actually 27,246,801) of condensed milk valued at £661,846 have been imported into the Island, i.e., and annual average of 5½ million pounds approximately (actual 5,449,360 lbs.) of £132,369 value per annum.

(b) In the same period, meat in the form of canned meats, salted beef, ham, salted pork, etc., of 13,556,565 lbs. gross weight valued at £388,976 has been obtained from foreign sources, i.e., an annual average of 2,711,313 lbs. of £77,797 4s. 0d. value per annum.

A grand total in five years of animal husbandry products, exclusive of butter, lard, butter or lard substitutes of approximately 41 million lbs. weight valued at £1,050,822 or 8 1/5 millions lbs. valued at £210,164 annually.

There can be few countries to-day which depend so little on artificial manures or in fact on the use of any manures, but there are indications that the Colony's agricultural position can be further considerably strengthened by development in this direction.

The imports in 1934 represent an increase of 60 per cent. over the imports of 1932. It is estimated that prior to 1933 75% of the imported manure was used in cane cultivation, representing a consumption of approximately 1,700 tons per annum. It is estimated that about 30% of the acreage under cane cultivation received artificial manure. The remaining imports were used partly on bananas and partly on citrus. It is probable that the entire increase of imports in 1933 was consumed by the sugar industry.

During 1934 there was a considerable increase in the use of artificial manures in cane cultivation. It is estimated that 65% of the total imports, representing 2,300 tons, were used in the manuring of sugar cane. Approximately 65% of the acreage of sugar cane received artificial manures in 1934.

The main cause of the increase of the imports of 1934 is the extended use of artificial manures on bananas. It may be roughly estimated that 1,000 tons were used during 1934 for this purpose. There was a slight increase in the use of manures on citrus cultivation. It is a remarkable fact that only 3,625 tons of manures were imported in 1934 while the potential annual consumption of the banana industry, assuming that there is no considerable decrease in acreage, and that the second-class lands now being brought into cultivation can be assisted by the use of artificial manures, is estimated by the Agricultural Department at 15,000 tons.

Panama Disease continues to be the subject for considerable anxiety. The rapid spread of the disease in St. Mary caused the planters of that parish to request a modification of the "Nine-root" system of control and after mature consideration by the Advisory Committee on the Banana and Citrus Industries permission was given for a modification of the treatment and control measures as an experiment for the period of one year. It is yet too early to judge of the value of this modified treatment although it would appear that the disease is still spreading at an alarming rate in this parish and in many other parts of the Colony. The irrigated banana lands have suffered especially severely from the ravages of the disease resulting from the spreading of infection by the floods of the last three years. Strenuous efforts are being made by the Department of Agriculture to push ahead with the work of breeding an immune banana which would replace the Gros Michel and yet withstand infection by the Panama Disease organism. Some of the older seedlings resulting from the banana breeding work have now been propagated to a sufficient extent to enable commercial trials to be made. The opportunity was taken to utilize the services of an officer on leave in England in examining experimental shipments of seedling and Cavendish bananas sent to the English market. It is pleasing to record that these experiments met with some measure of success and information was obtained which will be followed up in investigations at the experimental cold storage plant.

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AGRICULTURAL CREDIT.

We have been impressing on our public that the problem of agricultural credit is one common to all countries.

The usual commercial Banking Institutions have proven unsuited to the needs of agriculture and wherever agriculture as an industry is the primary source of wealth (as it is the case of Jamaica) the necessity of a solution of the problem becomes more imperative.

We reproduce below a news article from the "Crown Colonist" of February, 1935, outlining the salient features of a report of a special committee appointed in Ceylon to consider Banking and Credit in that Colony. We propose procuring the full report for study.

Editor.

Banking and Credit in Ceylon.

Following several months of investigation, the Commission appointed to report on the conditions of banking and credit in Ceylon has issued its findings and recommendations in a volume of 285 pages, accompanied by a volume of memoranda of evidence running to 528 pages, both being issued as Sessional Papers and published by the Government Record Office, Colombo, at Rs. 2 and Rs. 3 respectively.

An exhaustive review of present banking and credit agencies and an analysis of the defects of the prevailing system leads to the conclusion that the existing banking organisation is unfitted to meet reasonable indigenous demands for credit. There is no branch banking, and most of the present banks have their business concentrated in Colombo. In the matter of internal finance and inland remittances, the present banks are found grossly wanting. The Commissioners, who are unanimous, consider that national banking is essential for the economic advancement of Ceylon; powerful indigenous banks are always helpful not only to the commercial community but also to Government in the hour of need, and it is predicted that national banking will lower rates of interest.

A State-aided bank is suggested; with an initial capital of Rs. 10 million, out of which the State should subscribe Rs. 8 million The public should be offered 40,000 ordinary shares of Rs. 25 each for the present, and thereafter the remaining 40,000 ordinary shares should be issued at bank's option When conditions improve, Government may sell off its holdings. It is not required to assume any other responsibility in regard to the liabilities and deposits of the bank, and it is provided that if the working of the bank should, at any time, disclose a loss of one-third of the capital and reserve, it should stop its activities. From seven to nine directors are recommended, these being representative of the Europeans, Indians and Ceylonese and selected in the first instance by the Governor, assisted by nominations from the four principal Chambers of Commerce. Government representation on the board is not deemed necessary.

Facilities created by the State-aided bank are to be supplemented by the establishment of local banks in important places, these local banks to find in the State-aided organisation their "banker, friend and guide." The parent bank should also assume the principal responsibilities for providing credit for internal economic activities, whether related to agriculture, commerce or industry.

A number of recommendations deal with the improvement of banking regulations, and it is found that in general the Roman-Dutch law is too

antiquated to meet the present-day commercial and banking activities and that the legal system of Ceylon governing them should be revised. Surveying the various agencies for promoting thrift, the Commission make recommendations concerning Ceylonese participation in share broking, urge the voluntary conversion by the State of external debt into rupee commitments, unification of the savings banks, the creation of new channels of saving, and the regulation of insurance.

Regarding agricultural finance, besides recommendations for the registration of titles, a special form of organisation to provide credit for the development of waste lands is proposed; also measures to alleviate the rural debt position. In order to provide for industrial expansion, capital must be provided by investors, while working capital will be available through the banks. For pioneer industries, however, financial assistance might be sought from the State-aided bank. The finance of cottage industries should be mainly provided through industrial co-operative banks and urban credit societies. Suggestions are made for bettering the methods of marketing finance, and there is a recommendation for the formation of farmer's marketing and purchasing societies.

A change in the basis of the monetary system of Ceylon is not considered desirable, but the Commission shows how the present loss of profit on minting could be avoided. Recommendations are made for the introduction of currency chests at the Kachcheries to facilitate internal remittances and for imparting elasticity to the currency system. Means are suggested to accelerate the education and training of Ceylonese in banking, and it is also proposed that an Economic Advisory Council should be established; also a separate Department created for the collection of information and statistics.

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P. P. CORNICE,	3"	10s.,	12s. per 100
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CAVETTA MOULDING,	1½"		7s. " "
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Apply at 24-26 East Street, Kingston. 'Phone 2794.

FENTON'S CABINET ESTABLISHMENT.

(*Extracts from Journal of the British Honduras Agricultural Society, January to March*, 1935.)

Under the head of Grenada's Budget for 1935 in "The West India Committee Circular" is the following: "Among the Committee's (economic) recommendations is the establishment by the Government of a fund not exceeding in the first instance £25,000 for the purpose of granting loans to small holders for the cultivation of bananas and any suitable new agricultural products from which it would appear probable that the landowner and the community would derive benefit." The Committee does not include in such new agricultural industries the estate cultivation of sugar cane.

Sometime ago the writer wrote in the two local papers advocating the establishment of a Government Agricultural Loan Bank. He would now like to say that, what would "fill the bill" would be a Government "Co-operative Agricultural Loan Bank." He believes that some day it will come about. Why he says that, is already they are lending money, and it is only wanted to be done on a larger scale, taking in more people for it then to become in name a Loan Bank. The Government some years ago went the length of advancing money to Civil Servants to build houses. With what success in getting the loan repaid, I do not know.

There is one thing certain that for the Government to be encouraged to start this "Co-operative Loan Bank" that I write about is for the present planters who have had loans to see and repay them, for on that will depend a great deal such a Bank be started.

Even if a Bank be not started, if these planters who now have loans would repay them, the Government will have that money to lend out again. So it is up to the planters to make good, not only for their own sake, but for others, who also stand in need of help.

Ed. Note.

Other countries are doing what we want done here.

(*Extract from Journal of the British Honduras Agricultural Society, January to March*, 1935.

The newly arrived Drying-Kiln is being erected on what was formerly Krug's wharf, and now Government property.

The Kiln will be under the management of the Board of Agriculture.

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REVIEW OF CURRENT LITERATURE.

We acknowledge with thanks receipt of the first copy of the Journal of the British Honduras Agricultural Society. This is to be a quarterly publication until increased membership makes it possible to issue it monthly. The Editor, Mr. Edward H. Aikman, is to be complimented on the excellence of the first number. If this standard is maintained, we have no doubt that the Journal will receive the whole-hearted support of the agricultural community of British Honduras.

The articles cover a very wide range of agricultural topics. Those on "Drainage," Origin of Domesticated Fowls." and "Rice in the Caribbean Area," are particularly interesting.

The printing, which is done by the Angelus Press of Belize, is excellent. We wish every success to our new contemporary.

"Diseases of the Banana and of the Manila Hemp Plant."

By C. W. Wardlaw, Ph.D., D.Sc., F.R.S.E., *Macmillan and Co., Ltd., St. Martin's Street, London.* 1935. 30/-, 615 pp., 292 plates.

This book is a comprehensive review of the known diseases attacking the banana in the field and during transport and ripening. It is a publication intended chiefly for the mycologist and plant pathologist, but many sections will be of interest to the lay reader.

The external and internal symptoms of each disease are given, and, when known, the characteristics of the causal organism are described. When available, the results of inoculation experiments are discussed. The data on method and rate of spread are given as well as any ecological inter-relationships of the pathogen and the host that might be useful in control. When possible, suggestions for disease control are made.

Section I deals with Soil-Borne, Vascular and Stem Diseases. 112 pages are devoted to Panama Disease or Banana Wilt as the author prefers to call it. An interesting theory quoted is that of Gäumann—with which the author disagrees—that Fusarium cubense is merely a highly toxic follower of bacterial infection. This theory has been refuted by Ashby.

Section II deals with Plantation Diseases of Fruit and Leaf Diseases. Of the latter, Cercospora leaf-spot has recently been causing severe damage in some parts of the western tropics. It was estimated to have caused a loss of 60% of the crop in Vitilevu, Fiji Islands. It was discovered in Trinidad for the first time in 1934. All commercial varieties are apparently susceptible.

Section III is devoted to Virus Diseases, the best known of which is Bunchy Top which is widely distributed in Australasia.

The diseases of bananas during transport and storage comprise the last section. Much of the information is based on researches conducted by the author and the late Dr. L. P. McGuire, and has been published in "Tropical Agriculture" and elsewhere. The last chapter deals with the causes of deterioration of Manila Hemp in storage. There are four appendices and a bibliography of 559 titles. The illustrations which are excellent are drawn from many sources. They include two colour plates, one of the external symptons of Panama Disease, and the other the effect of chilling during transport.

The author is plant pathologist to the Banana Research Scheme, and

both at his headquarters in Trinidad and during the course of extensive tours of the banana-producing countries of South and Central America and the West Indies he has had an unrivalled opportunity of getting intimate first-hand knowledge of the problems of banana diseases in the tropics.

This volume is undoubtedly the most important contribution made during recent years to our knowledge of these problems; and it is certain to become the standard work on the subject of the diseases of the banaana.

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April 22nd, 1935

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THE MAY PEN ALL ISLAND AGRICULTURAL SHOW.

We strongly recommend to everyone, agriculturists or otherwise to attend the May Pen All Island Agricultural Show to be held on Easter Monday, April 22nd, 1935. It is a most ambitious attempt at achieving the ideal of what a real Agricultural Show should be, and has had the advantage of proper organization carried through with the untiring zeal of a very hard working and experienced Business Committee under the enthusiastic leadership of Major A. R. Moxsy, who is so very well known in Clarendon for his interest in agriculture and the Agricultural Society.

The Show is having the hearty co-operation of the Department of Science and Agriculture and several exhibits from that Department, accompanied by short instructive talks from Officers in charge of the Department's Exhibits, will be among the many attractive displays that will be there to interest those who attend.

Exhibits are expected from far and wide as the interest of Branch Agricultural Societies all over the Island has been enlisted.

The Prize Lists have been constructed on a most generous scale and entries have been most gratifying.

Live Stock lovers, Poultry enthusiasts and housewives will all be well satisfied at what they will see.

Vegetables promise to be an important Section of the Show as it should be.

The Show deserves the strongest support from the public, but especially so from every member of the Jamaica Agricultural Society.

It is hoped to make it a bi-annual event so that exhibitors may be able to count on a permanent Show Fixture in the future.

You are expected to be there.

Ed.

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DAIRY CATTLE BREEDING IN JAMAICA.

By T. P. Lecky.

(A Fourth-year Thesis for Course in Animal Husbandry at the Ontario Agricultural College, 1934.)

(*Continued.*)

Montgomery Breeding in Jamaica.

In 1920, the Government of Jamaica imported from the Pusa Farms, India, two Montgomery bulls to cross with the Ayrshires as the Pusa Farm was reporting success with them. One of the bulls was sterile. The Ayrshire cross was unsatisfactory and was discontinued.

The following are the results of "Pusa" on the different breeds in the herd.

Comparison of dams to their daughters:

		Daughters.	Dams.
Average lactation	..	4,346 lbs.	4,088 lbs.
" butter-fat	..	250 lbs.	190 lbs.
" test	..	5.4%	4.5%

Milked, 19; culled, 8; foster-mothers, 12; yet to be tested, 47. Pusa cross with:

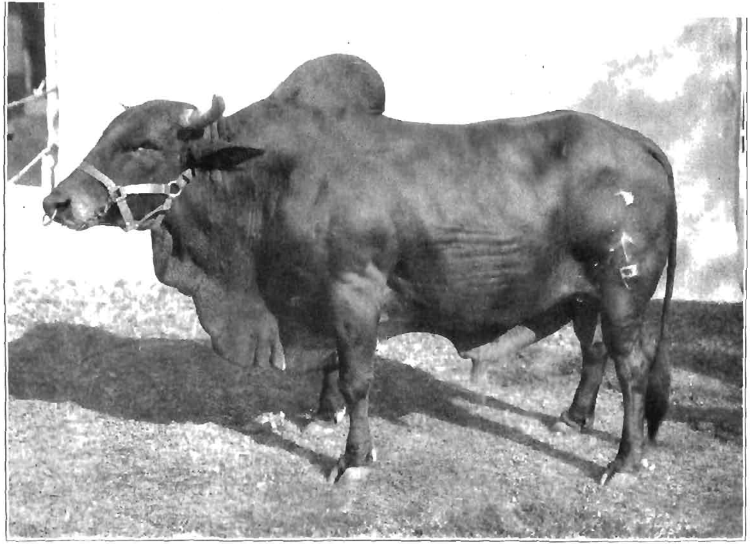
		Jerseys.	Guernseys.	Holsteins.
Average lactation	..	5,135 lbs.	4,317 lbs.	4,336 lbs
" butter-fat	..	272 lbs.	206.6 lbs.	223 lbs.
" test	..	5.55%	5.3%	5%
Qualified ..	..	11	3	3
Non-qualified	..	8	3	2
No. of cows.	..	19	6	5

His highest producing daughter gave 8,436 lbs. milk, 447 lbs. fat as an average for five lactations. She was out of a graded Jersey cow with an average of 3,573 lbs. milk. This shows that the Zebu blood was necessary to bring out the best yield due to increased vigor and constitution and likewise Pusa is carrying factors for moderately high production. The best results were obtained when he was mated with Jerseys as the heifers were easier to break in to milk.

Of the 47 daughters only 19 were used as dairy cows—8 were not yet tested and 12 were used as foster-mothers because they could not be easily handled, also 8 that were culled. If a farmer could afford to handle them from a calf until the time they have calved, the amount milked would have been greater, but in a large herd this is not often possible; and though some were fairly tame they would not milk without the calf. His sons have been in demand and many have been distributed over the Island. A few of his sons were tested on the Hope Farm. He proved to be a very poor breeder though he bred up to his sixteenth year, which seems to be the same difficulty the Pusa Farm is experiencing with their bulls. Pusa has contributed greatly to the dairying of the Island.

Half-bred Zebu bulls.

These Zebu-Guernseys have been tested in the herd and one Zebu-Jersey is at present being used. The Zebu-Jersey bull offspring has not



"Sanhiwal Pusa." Montgomery Bull. Bred at Government Farm, Pusa, India. Imported into [illegible] lactation 7,340 lbs.; Dam "Syria." 6,312 lbs.

Fig. 4.—"Vickie A." "Foster Mother." High grade Jersey cow (1-16 Zebu) weight 670 Sire, Tipperary (Zebu-Jersey) Dam, Pedigree Jersey cow "Vixen."

been tested. One of the Zebu-Guernseys was tested for a short time. The other two were out of purebred Guernsey cows—one dam was an American Guernsey, the other an Island bred cow. These bulls are sons of Pusa.

"Colin" produced 53 calves of which 21 were cow calves. He is a low set brindle bull weighing 1,800 lbs. as against 1,392 lbs. for his sire. His daughters have mostly inherited the faulty udder of his dam. The five leading daughters gave 5,770 lbs. as an average and his leading daughter has given over 6,800 lbs. of milk. These cows were not as good as their dams. Four of them were from the leading cows in the herd.

"Florian" was a low set black bull weighing 1,750 lbs. He was born in 1922 and was lost through an accident in 1929. He produced 66 calves of which 34 were females—his best daughter, "Monica 16th," gave 1,890 lbs. milk and 498 lbs. fat in her first lactation.

Comparison of his daughters with their Dams:—

	Daughters.	dams.
Average lactation	4,555 lbs.	4,963 lbs.
Average butter-fat	246 lbs.	223 lbs.
Average test .. .	5.4%	4.5%

Milked 19; sale 3; foster-mother 1; culled 10; died 2—35.

His daughters showed a lower yield in milk but higher in butter-fat than their dams. The difference in milk would have been made up if they had a few more lactations. Only 54% of his daughters qualified for the herd.

Less than a Half-Zebu:

In the early history of the Farm two Zebu bulls were used. They were sired by two purebred Jersey bulls and out of the same dam "Distance" a quarter-bred Nellore (Zebu). At present some of the finest cows in the herd traces to them. Their greatest value was in introducing some Zebu blood; therefore, their major value lies in their grand-daughters.

No. 1 "Tipperary".—His daughter's productions are as follows:—

Average lactation	3,918 lbs.
Highest average lactation	6,382 lbs.
Average butter-fat	192 lbs.
Highest average butter-fat	294 lbs.
Average test	4.4%

Milked 20; culled; 5; foster-mothers 4; sale 1—30.

No. 2 Experiment.—Result of his breeding:—

Average lactation	3,537 lbs.
Average butter-fat	167 lbs.
Average test	4.8%

Milked 31; culled 1; foster-mothers 8; sale 7.—47.

Summary of Zebu-Jersey crosses:

Average lactation	3,995 lbs.
Average butter-fat	177.3 lbs.
Average test	4.6%

Milked 51; culled 6; foster-mothers 12; sale 8;—77.

66% qualified for the herd. This data can only be taken judging by the standard of those times as it was in the early history of the Farm. Many of the daughters of these bulls were the leading cows of the herd and the majority of their daughters were from inferior animals which rapidly disappeared from the herd.

The following useful families have descended from these bulls:

Badge	Diva 4th
Cognac	Cognac 2nd
Diva 2nd	Diva 10th
Marchioness	Marchioness 12
Quails	Quail 8th
Timorette	Timorette 4th
Paste	Paste 1st

No. 3 "*Diadem*".—This bull was the son of Experiment out of an imported Jersey cow and was unfortunate to have a poor dam. He produced 12 daughters before he died at 3 years of age from "mad staggers" in 1915. His line of breeding is in the herd through Monica 2nd to Monica 15th.

In any case under ordinary farm conditions the cattle need some Zebu blood. The amount needed depends on the amount of segregation of the Zebu factors that takes place in the individual. Normally one-eighth Zebu does best but there are several cases where the factors for constitution have been lost before this has been reached, while on the other hand it has been found present in as low as one-thirty-second Zebu. The reasons for this is because there are 19 pairs of chronsomes in cattle and on a reduction division in a primordial germ cell, 19 single chromoses are found in the sperm or the ovum. In a cross of, say, Jersey-Zebu *we have 19 Zebu chromosomes and 19 Jersey chromosomes in the F1* primordial germ cell. On mitosis whether all the Zebu chromosomes or a portion of them or even none goes over iu any one sperm is purely a matter of chance. Hence on a cross-back to the Jersey the possibility is that we may lose all the factors for constitution or have a high percentage in the offspring.

From this is will be seen the necessity to mate each individual to the bull that is suited, by her individual case. Unfortunately this requires two bulls and often three to be used on the farm at the same time. An example of this is seen in Vickie C.

Vickie C ($\frac{17}{32}$ Zebu) (Wt. 1,160 lbs.)
- —Pusa (Purebred Zebu)
- —Vickie A ($\frac{1}{16}$ Zebu) (Wt. 670 lbs.
  - —Tipperary ($\frac{1}{8}$ Zebu
    - —Draconis (Purebred Jersey
    - —Distance ($\frac{1}{4}$ bred Zebu)
  - —Vixen (Purebred Jersey)
    - —Rothschild
    - —Timora

(See photograph Vickie C and Vickie A)
Contrast to Vickie A is Timorette 4th.

- Timorette 4 (Wt. 1,016; $\frac{1}{32}$ Zebu; Yield 6,650 lbs. 352.5 butter-fat in 2nd lac.)
  - —Pogis (Purebred Jersey)
  - —Timorette ($\frac{1}{16}$ Zebu)
    - —Experiment $\frac{1}{8}$ Zebu
      - —Trojan (Purebred Jersey Bull)
      - —Distance $\frac{1}{4}$ Zebu
    - —Timora (Pedigree Jersey)

Ths idea is borne out by the graphs presented showing the produc-;ion from cows with Zebu blood, those with native and those that were ɔurebreds. It must be remembered that those with 1-16 Zebu were nostly bred during the time of the war and had been more affected by 'eeding conditions. The $\frac{1}{4}$ Zebu have had the same chance as the $\frac{1}{8}$ and ınd $\frac{1}{2}$ Zebu also 1-64, in that more of them milked during the period rom 1920-1933. The half-Zebu had the advantage to have hybrid vigour, hence we find a falling back at the quarter-bred Zebu. The .-32 and 1-64 had more Jersey in them, and thus had more of the actors for production and less for constitution. The frequency table showed that the greatest amount of cattle fell within the 4,500 lbs. range of all the cattle with Zebu, while in those with native blood but no Zebu fell in the 3,500 lbs. class. The natives like the 1-16 Zebu had more than half of their animals, tested before 1920, which may have been the reason; yet the greatest percentage of failure lies with them ınd with the half-bred Zebus.

Purebred Bulls on Cows with Zebu Blood:

The general practice is to use purebred bulls on Zebu hybrids chiefly as a back cross to the northern breed. In this case we have less complication than when we use a graded Zebu bull for we are sure that the result will not be as variable. The number of times one can top cross with the purebred northern bull depends on the individual as with segregation taking place we may lose the constitutional vigour. The effect of purebred bulls on cows with Zebu blood is very marked,

but one must obtain a bull with high production, which is often difficult when we depend largely on importation; therefore, if we cannot get a progeny-tested bull we have to take one whose parents are high producers. With this one can be reasonably sure that his daughters will carry a greater factor for milk since graded bulls cannot be depended upon.

Example of this breeding is Pogis 99th of Hood Farm 40th on Zebu graded cows whose 12 highest daughters of this mating are as follows:

Average Lactations.

Daughters.	Dams.	Daughters.	Dams.
8,717 lbs.	3,525 lbs.	6,048 lbs.	F. M.
7,942 lbs.	3,504 lbs.	5,503 lbs.	4,001 lbs.
7,377 lbs.	4,940 lbs.	5,500 lbs.	3,564 lbs.
7,083 lbs.	3,535 lbs.	5,485 lbs.	F. M.
6,650 lbs.	2,784 lbs.	5,297 lbs.	3,338 lbs.
6,203 lbs.	6,215 lbs.	4,561 lbs.	3,658 lbs.

Average: Daughters 6,364 lbs., Dams 3,905.4 lbs.

Purebred Ayrshires on Purebred Zebu Cows:

This cross was tried in India with the idea of evolving a new breed. The F1 hybrid were superior to the purebreds, but when crossed "inter se" were on the whole inferior to the purebreds. This experiment was carried on for ten years when it was discontinued and the attention was placed on the development of the Montgomery herd. The average daily yield per cow of the F1 hybrids was 19.6 lbs. compared with 12 lbs. for the purebred Montgomery selected herd. The two leading cows of this cross were: Alibi, with an average for 7 lactations of 9,833 lbs; highest yield 12,018 lbs. in 304 days; Ranghi, average 7,076 lbs. and highest yield 10,134 lbs. in 304 days. The highest yield of the Montgomery selected herd was 7,033 lbs. milk.

(To be continued.)

IT IS OF CAPITAL IMPORTANCE that....

all milk used in the household should come from healthy cows, fed in the country, on rich pastures, that it should be perfectly pure and safe, with all vitamins and nutritious elements left intact.

This can only be attained where best organisation and conscientiousness co-operate. In this respect, the name of **Nestle's** means full guarantee. Indeed the Nestle Company is always on the level with the most up-to-date scientific methods for the manufacture of milk products. ***Therefore . . . . .***

IT IS OF CAPITAL IMPORTANCE

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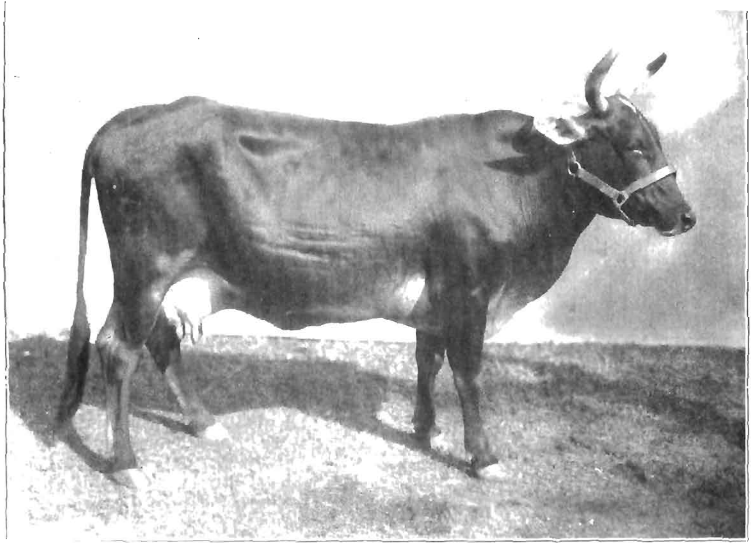

Fig. 3.—Marchieness 12th Zebu-Jersey (17-32 Zebu). Average lactation 8,136 lbs. milk; 14.7 lbs.

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CAMPBELL & CO., LTD., 137 Tower St., Kingston

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(Extract from Queensland Agricultural Journal, 1st November, 1934.)

EXPANSION OF DAIRYING.

The dairy industry is expanding and competition is such that it is necessary for dairy products to be obtained as economically—and continuously—as possible, and it is for this reason that pasture management is so extensively practised in countries where dairying is to any extent conducted. Very briefly stated, pasture management in the coastal districts may be said to consist of sowing suitable grasses for the laying down of a permanent pasture, or the renovation of an existing pasture, and where the pasture is established by either of the above-mentioned procedures. The next and most important step in pasture management is to feed off the pasture when in its most nutritious stage of growth, namely, when it is young and succulent. The feeding off of only young grass growth is managed by having the pasture sub-divided into paddocks of about 2 to 3 acres, and grazing off these paddocks in rotation. Fertilizers are applied to these pastures.

The following figures show the increased nutritional value of pasture that has had fertilizer—ammonium sulphate and superphosphate—applied compared with similar adjacent unfertilized pasture:—

	Crude Protein.	Crude Fibre.	Lime (CaO).	Phosphoric Acid (P_2O_5).
	Percent.	Percent.	Per cent.	Per cent.
Fertilized Pasture ..	17.6	25.9	0.593	0.586
Untreated Pasture ..	7.6	27.2	0.421	0.253

These figures show definitely the improved nutritional value of pasture gained through the application of fertilizers. The above samples were grown in paddocks at Caboolture, but similar improvement in pasture value has been obtained where correct fertilizer application and pasture management has taken place. It may be mentioned that the application of superphosphate increases closer growth in the pasture, whilst the ammonium sulphate particularly benefits grass growth.

The growth of legumes such as clover in grass pastures increases the feed value of such pastures, as the legumes generally are richer in both protein and minerals, being particularly rich in lime, but grasses grown under good conditions and grazed at best period of their growth contain usually somewhat more phosphoric acid than the legumes. It would appear from this that to obtain the best results a certain balance of clover and grass is necessary in pasture.

It is not necessary to give any further examples showing the great difference in the nutritive value of young and mature pasture. The following will illustrate the value of correct grass management, a sample of paspalum pasture obtained at time stock were put on it contained the following in the water-free material:—

	Per cent.
Crude Protein	21.1
Crude Fibre	26.3
Lime (CaO)	0.416
Phosphoric Acid (P_2O_5)	0.616

Sixty-four pounds of this green paspalum would supply 2.2 lb. of digestible crude protein, which amount is sufficient for a cow yielding

25 lb. milk of 3.5 per cent. fat; whereas 67 lb. paspalum at a stage of growth frequently fed to cows require the addition of lucerne chaff or concentrates in order to supply the 2.2 lb. of protein required as mentioned. It is cheaper to supply protein in grass than to buy concentrates for that purpose.

It is possible with suitable grasses and correct management of the grasses to supply high-feeding value material, when other food material is lacking, either by grazing, the grass, or by using the surplus grass of flush growth, which has been stored as hay or ensilage.

THERE ARE PLENTY OF RISKS

In raising Cattle, and yet there is

ONE RISK THAT CAN BE AVOIDED.

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It is now used in several parts of the island with satisfactory results.

WE INVITE ENQUIRIES.

KINKEAD, Ltd. - Kingston.

(*Extract from Journal of the British Honduras Agricultural Society, January to March,* 1935.)

DRAINAGE.

By R. A. KITCHING, Acting Agricultural Officer.

Drainage is one of the most important operations in the cultivation of the soil, all crops temporary and permanent have to be properly drained. It is a subject that should be of particular interest to British Honduras Agriculturists as it has been so very much neglected in the past.

WHY DO WE DRAIN?

1. *To remove excess water from the Soil.*—

Not only the water one may see lying on the soil-surface but also the excess water in the soil, an excess of water prevents seed germination, plant growth and causes plant material to decay.

2. *To get the water into the Soil.*—

It is no use on the surface, you want to get it into the soil where the plant roots can make use of it.

3. *To Aerate the Soil.*—

Plants need air and some of this they obtain through their roots.

In order that the beneficial bacteria of the soil may work they must have air, they turn the various plant foods in the soil into a form in which the plant roots can make use of them.

Leguminous plants have bacteria on their roots which are capable of storing nitrogen in nodules on the roots of these plants, they need air to do their work, as they get the nitrogen from the air. The passage of water through a soil on its way down to the level of the drains causes a draught and vacuum which is filled up by air, so that draining increases the air in the soil.

4. *To make the Soil warmer.*—

A wet soil is inclined to be a cold soil, and seed germination and root growth take place much more slowly than on a dry soil.

5. *To make the Soil easier to work.*—

A wet soil tends to be sticky and heavy and so difficult to work, a well drained soil breaks up more easily and a good tilth can be formed, this is particularly important for seed-beds.

6. *To help plants to resist Drought.*

In an undrained soil your water level is high in wet weather and consequently the roots do not go down very deep, they do not have to in order to get water and they cannot if there is too much water, as your water level usually limits the depth to which the plant roots will go.

When dry weather comes along and the water level sinks, your plants are shallow rooted on account of the wet season water level and consequently lose contact with a suitable supply of water, and your plants suffer from drought.

The top layers of the soil dry out quickly through evaporation and transpiration, while the bottom layers retain water for a longer period, and if the roots of your plants have been trained by draining to be down in those lower layers then they will not suffer from drought to the same extent.

7. *To promote earlier Crops.*—

A well drained land is capable of being worked after wet weather much sooner than badly drained land, consequently enabling you to

get your crops in earlier. Also excessive moisture tends to promote vegetative growth and retard flowering, seed and fruit formation. Permanent crops take longer to come into bearing on badly drained land.

8. *To prevent Erosion and Soil Wash.*—

This point applies particularly to hill-side cultivation. Heavy rain on an undrained or improperly drained hill-side causes serious loss of soil and humic matter through "Soil Wash," and in time the hill-side becomes denuded of all its soil and becomes infertile and no use for agriculture.

This erosion can be retarded and prevented by proper drainage, that is, by digging "contour" drains.

These are drains which run across the surfaces of the hill tending to keep at the same level for their full length.

When water flowing down a hill-side meets one of these drains, its downward action is arrested, it does not flow so fast, and material that it is carrying in suspension is deposited in the drain, where it may be left, a new drain dug when this one is full, or it may be dug out and thrown back on to the land.

The water when it gets into the drain tends to sink into the soil rather than run along the surface and in a well graded contour drain the flow will be slowed down so that the water will not carry too much, if any, soil matter away.

The prevention of a heavy flow of water over the soil surface also prevents the washing away of seeds and crops, the laying bare of roots and the uprooting of trees

9. *Drainage helps to prevent and cure certain Diseases and Pests.*—

Many diseases and pests require excessive moisture for them to operate, so if you remove the excess water these diseases cannot thrive, also too much water makes plants weak and sick, this weak condition opens the plant to attack from diseases and pests which would not trouble it if it were in a healthy condition, or if they did trouble it the plant would have the strength and vitality to throw off tbe disease if it were in vigorous healthy growth as promoted by good drainage.

With regard to Livestock, wet conditions weaken them and make them more susceptible to various diseases, and certain pests and diseases need wet conditions to thrive.

10. *Help to eradicate Weeds.*—

Some weeds like a moist soil and will die out if the soil is drained.

In the case of pastures, the better and mor nutriious grasses will take the place of poor types when the soil is drained.

11. *Manures and Fertilizers are more quickly and easily available to the plants.*—

If the soil is too wet bacteria cannot work and fertilizers take longer to act and have more time to be washed out of the soil.

Drainage enables the manures, etc., to get into the soil quicker.

12. *Helps to remove toxic materials from the Soil.*—

By their being dissolved in the water and carried away in the drainage water.

13. *A few remarks on local crops in relation to drainage may be useful.*

(a) *Bananas.*—To get the optimum growth and results from Bananas, good drainage is essential, it enables them to come into bearing earlier, bear longer, give better fruit and crops, keep healthy and resist diseases —for example, Wilt (Bacterial and Water) and Panama Disease.

A water level of four feet is said to be the best for bananas.

(b) *Coconuts.*—Better bearing qualities and earlier bearing are encouraged by draining, and red-ring, bud-rot and wilt are resisted if not prevented.

(c) For *Citrus* good draining is essential to get early crops, good crops and good quality fruit.

The Sour Orange root stock on which most of the citrus in this Colony is budded, thrives best if the waterlevel is at least four feet below the soil surface.

Good drainage helps to prevent diseases like collar-rot and mal-degoma or gumnosis.

(d) *Rice.—This crop is usually grown in water, but it does not like stagnant water or a water-logged soil, the water should be kept moving.*

(e) *Cassava.*—Cassava cuttings succumb very easily to an excess of water and if they do grow tend to produce vegetative growth at the expense of tubers, and the tubers are of poor quality.

(f) *Sugarcane.*—Bigger crops of better quality cane are produced when the land is properly drained.

Draining also helps to control diseases and pests especially "Froghopper."

It is hoped that the foregoing will be of some use to the local planter, I have tried to keep it as simple as possible so that everyone may understand and realize the need for adequate draining.

Drainage is an expensive operation, but is fully worth while; its effects are certain, quick and lasting. It improves your crops, your land and the health of you, your family, labour and livestock.

CROPS DON'T JUST GROW!

EFFICIENT FARMERS GROW THEM AND

THEY FERTILIZE

WITH

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THESE ARE

ORGANIC MANURES.

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Our product being fortunately produced within the Island, we can supply as cheaply as imported organic fertilizers.

WE GUARANTEE ANALYSIS

WE OFFER EXPERT SOIL SERVICE

We gladly test soils for acidity, available nitrogen, phosphoric acid and water soluble potash, and supply mixtures suitable to the needs of the individual buyer. We don't sell blindly nor wish you to buy blindly.

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EDITOR'S LETTER BOX.

Milk River Mineral Bath,
Milk River P.O.
Jamaica, 15th February, 1935.

Dear Sir,

In the Journal for December last I observe that instruction in "First aid in Veterinary" is being supplied to Agricultural Instructors, I suppose for assistance of the peasantry generally.

I consider this a very good move and I am asking permission to contribute towards the matter and trust same will be acceptable to your Board.

Having had very extensive experience in handling both mane and horned stock I have acquired the knowledge of certain remedies in relieving and curing some of the ailments of these animals.

For ordinary "Belly ache" or colic and especially "Cashaw" poisoning there is no more effective remedy than a dose of Jeyes fluid, for an adult animal, one tablespoonful to a bottle of warm water (not a pint bottle) and from younger animals for a dessert to a teaspoonful according to age and circumstances in a pint bottle of warm water.

The most important part in dosing animals successfully is a correct diagnosis as often kidney trouble in draft animals is mistaken for belly ache.

For ulcers, which are often taken for Farcey, a mixture of powdered charcoal and flour of sulpher in equal parts is very good and if proud flesh is noticed add to the mixture powdered bluestone in proportion of one-sixth, this powder should be applied dry, that is after cleansing the ulcer thoroughly with hot Jeyes water.

As regards preventing cruelty by flogging a stubborn or gibing beast either in draft or under saddle, there is no better plan than the following: take a bit of cord or rope and pass it over the fetlock of a front leg then pass the rope over a part of the harness or saddle, lift the hoof and suspend the leg for about 15 or 20 minutes letting the animal stand on three legs, on releasing the leg off he will go like a shot—without a single lick.

The above remedies are evolved from my own practice and I have never found them fail and in the interest of the dumb creation I now gladly pass them out.

I am, etc.,
(Sgd.) R. W. P. Richards.

Milk River P.O.

Sir—In the January Journal, page 16, your editorial "Agricultural Planning" is of more than passing interest and your dictum "The universal problem is the maintenance of income" hits the nail right on the head driving it home. "The problem is common to the individual, the business company, the community, the nation." I feel certain that the Jamaica Agricultural Society will take in the full import of this statement, will ponder, ruminate and then act, getting things done as H.E the Governor, President of the Society, would say. "The endeavour to plan *immediately* (italics mine) exposes a multitude of cultural marketing and credit problems" and then you enumerate some of the problems. Now, sir, to me one of the immediate things we can do not only to maintain income but to increase it is to eliminate waste and this the Produce Inspectors, directed by their Head, Mr.

P. W. Murray, have helped materially in bringing about and if they were given more power they would be able to do more in eliminating waste. If our banana exports in a good year amount to 2 million we can by eliminating waste increase it by 25%. Through the splendid work of the Inspectors bruised fruit has been reduced to the minimum but the cutting of immature bananas represents an appreciable loss. The loss in the handling of immature fruit comes back on the Industry for the companies regulate their prices according to the sort of fruit offering, which is purely business and if they were sure of getting the right grade of fruit they would pay an enhanced price for that better grade. I contend that an immediate increase to the extent of some £400,000 annually can be realised in our banana exports if steps are taken to prevent the reaping of immature fruit and the Inspectors of Agricultural produce who have done and are doing such useful work and who have shown notwithstanding criticisms to the contrary, that they can use both tact and discretion in their work, should be armed with the necessary powers to prevent growers from reaping immature bananas and the Board of Management would by helping to bring about this, underwrite your statement "The universal problem is the maintenance of Income."

I am, etc.,
U. THEO. MCKAY.

Frankfield.

Messrs. RUSTON & HORNSBY LTD.

Offer first-class equipment for all irrigation projects.

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JAMAICA AGRICULTURAL SOCIETY

MARKETING NOTES.

(*Extract from Weekly Dairy Produce Notes, 25th January,* 1935.)

Prices of butter as issued by the London Provision Exchange 25.1.35 together with those of 18.1.35.

Butter.	This Week. Per cwt.		Last Week. Per cwt.
New Zealand—Finest	84/-	85/-	79/- to 82/-
First Grade ..	83/-	84/-	79/- 80/- up to 81/-
Finest Unsalted	88/-	90/-	84/- to 86/-

(*Extract from Weekly Dairy Produce Notes, 18th January,* 1935.)

TABLE IV.—*Average Price of Butter at the London Provision Exchange.*

Month.	New Zealand Finest Salted.		Australian Finest Salted.		Danish.	
	1934.	1933.	1934.	1933.	1934.	1933.
	Shillings per cwt.	Shillings per cwt	Shillings percwt.	Shillings per cwt.	Shillings per cwt.	Shillings per cwt.
January ..	*66/6*	*81/9*	*64/-*	*80/9*	*89/9*	*111/-*
February ..	70/-	78/6	66/3	75/3	91/9	107/3
March ..	72/-	74/6	70/3	72/9	93/6	97/6
April ..	70/9	68/9	70/-	67/-	83/3	94/-
May ..	76/6	78/3	74/-	76/9	85/6	93/6
June ..	78/-	80/6	74/-	79/6	86/-	90/9
July ..	75/3	80/-	69/3	79/9	88/6	96/6
August ..	80/9	89/6	75/6	89/-	106/6	103/9
September ..	73/9	101/9	71/9	101/6	106/9	115/6
October ..	68/3	99/-	67/9	98/9	111/6	112/3
November ..	74/9	86/3	73/9	84/3	120/6	118/6
December ..	72/3	69/9	71/-	69/6	123/6	110/3
Average ..	73/3	82/6	70/6	81/3	99/-	104/3

Home produced Butter.—Home-produced farm butter has shared in in the price decline of recent years, but to a less marked extent than imported butter. The average price of farm butter at representative markets in England and Wales during 1934 was 1s. 2d. per lb., compared with 1s. 2¾d. in 1933, a decline of 5 per cent., following a drop of 9 per cent. between 1932 and 1933. The increased supplies of British creamery butter, on the other hand, experienced a relatively greater

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decline, the average wholesale price amounting to 11¾d. per lb., as against 1s. 3¼d. in 1933, or a reduction of 23 per cent.; between 1932 and 1933 a decline of 10 per cent. had occurred.

Local Produce Prices.

Annatto—New Crop, Prime Red Seed		17 - gross Outport
		18/- gross Kingston
Cocoa—Ordinary	..	19/- delivered Kingston
Fair Fermented		19/- " "
Estates Fermented		19/- " "
Coffee—We quote nominally:—		
Good Ordinary		30/- " "
Fine Ordinary		32/- " "
Manchester-B		32/- " "
Manchester-A		34/- " "
Honey— White	..	2/- per gln. delvd. Kingston
Pale	..	1/6 " " "
Light	..	1/3 " " "
Dark	..	1/- " " "
Kolanuts—Sound quality, well cured		7/- delivered Outport
		8/- delivered Kingston
Orange Oil—Sweet, sound quality		4/9 per lb., delvd. Kingston
Sarsaparilla—Well cured, Red Roots,		40/- per 100 lb., net weights, delivered Kingston.

Wax—Pure and clear, 7d. per lb., nett weights, delivered Kingston.

(*Extracts from Weekly Fruit Intelligence Notes, 6th February,* 1935.)

Bananas.—Imports of bananas from Empire sources totalled approximately 10,426,000 bunches, as compared with 6,630,000 bunches in 1933 and 10,736,000 bunches in 1932. The decline in 1933 was accounted for solely by the decrease in supplies from Jamaica resulting from the serious storm damage to plantations in the Island. Empire imports last year represented 61.1 per cent. of aggregate imports, as against 62.2 per cent. and 41.7 per cent. in 1932 and 1933, respectively.

Grapefruit.—Imports of grapefruit from Empire countries in 1934 reached the record total of 520,000 cwts., or 53.4 per cent. of aggregate imports from all sources. Supplies from Palestine, South Africa and the British West Indies all showed further marked increases and reached new high levels.

Pineapples.—Imports of pineapples from Empire countries, the bulk of which come from South Africa, reached a new high level in 1934 with a total of over 16,000 cwts., or 30.5 per cent. of aggregate imports of this fruit.

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JAMAICA AGRICULTURAL SOCIETY.

REPORT OF JUVENILE VEGETABLE GROWING COMPETITION IN CONNECTION WITH THE MARLIE HILL JUVENILE BRANCH OF THE J.A.S.

This competition was judged on the 29th and 30th May, 1934, by Messrs. L. A. M. B. Coke, W. L. Shirley, C. S. Byles and O. P. Martin.

53 plots were judged. This entailed a good deal of travelling over very difficult country; but the journey was made very pleasant by the number of Juveniles and adults who accompanied the judges during the two days.

This competiton was a distinct improvement on former ones, both in the number and the quality of the plots. There was also a greater variety of vegetables.

The use of stable manure and fertilisers made the plots much more productive than on former occasions. Cultural operations were very much in evidence.

Teacher J. L. Thompson and his staff of teachers along with Mr. Hamilton, the Manager of the Juveniles, are to be congratulated on the excellent results achieved.

The competitors were divided into five classes as follows:—

(a) Boys out of school, (b) Senior boys in school, (c) Junior boys in school, (d) *Girls out of school*, (e) *Girls in school*.

The results are as follows:—

Class "A"—Boys out of School.

1.	Egerton Tulloch	191 marks.
2.	Reuben Perry	183 "
3.	Caiaphas Leachman	182 "
4.	{ Mordecai Parker	181 "
	{ Livingstone Jennings	181 "
5.	Arnold Brown (Sr.)	166 "
6.	Hepburne Young	160 "
7.	Aston Hayden	156 "
8.	Vickers Burke	154 "
9.	David Smith	135 "
10.	Sigismund Jackson	119 "

Class "B"—Senior Boys in School.

1.	Robert Bailey	185 marks.
2.	Claudius Francis	168 "
3.	Mortimer Blake	159 "
4.	Wilfred Burke	141 "
5.	Robert Parker	124 "
6.	Joseph McCalla	121 "
7.	Wedley Burrell	113 "
8.	Zebedee Christian	107 "
9.	Reuben Lee	99 "
10.	William Jackson	98 "

Class "C"—Junior Boys in School.

1.	Gerald Jennings	122 marks.
2.	Arnold Brown (Jr.)	114 "
3.	{ Neville Bond	106 "
	{ Hurbin Thompson	106 "
4.	Arnold Livingstone	94 "
5.	Clovis Jackson	89 "
6.	Hugh George Smith	73 "
7.	James Lotion	64 "
8.	Cecil Rowe	63 "
9.	George Challenor	56 "
10.	Kenneth Wright	54 "

Class "D"—Girls out of School.

1.	May Kong	150 marks.
2.	Esther Wright	137 "
3.	Elizabeth Wright	115 "
4.	Hoplin Perry	102 "
5.	Edna Smith	94 "
6.	Myrtle Smith	90 "
7.	Myrtle Henry	80 "

Class "E"—Girls in School.

1.	Iona Perkins	148 marks.
	Dolores Parker	148 "
2.	Mavis Young	143 "
3.	Olivia Brown	136 "
4.	Adlin Kong	127 "
5.	Alsomina Bailey	126 "
6.	Vinolia Melville	124 "
7.	Lucille West	115 "
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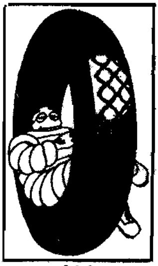

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(Extract from Journal of the British Honduras Agricultural Society, January to March, 1935.)

BRITISH GUIANA CIGARETTES.

A SUCCESSFUL LOCAL INDUSTRY.

The rapid growing popularity of "Lighthouse" cigarettes, which are made locally by the Guiana Match Factory, Ltd., has compelled the management of the company to extend their equipment by the addition of some of the most up-to-date machinery and plant in order to meet the steadily increasing business with which it has been found impossible to cope by merely working the factory early and late. The new machinery has now been installed, and the company are pushing ahead with the production of their cigarettes to overtake the demand.

There is only one feature of this business that is a matter of regret. This is, that the cigarettes should have to be made from imported Virginian leaf tobacco instead of from the locally grown article. It is not the fault of the company that this is so; they have done everthing to encourage the cultivation of tobacco. It is not the fault of the Government, who have placed a heavy duty on the Virginian tobacco. It is not the fault of the soil, which is well suited for growing an excellent sample of leaf tobacco. And, finally, it is not the fault of the Agricultural Department, which have given every assistance by way of advice and practical demonstration to growers.

The blame, therefore, must rest on the people themselves, who have, unfortunately, not yet taken proper advantage of the opportunity lying at their door for securing an assured and lucrative occupation.

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BEEKEEPING WITHOUT REGRETS.

By A. L. Bartlett.

For a number of years I have been a reader of The Journal of the Jamaica Agricultural Society and I take the paper mainly on account of the notes on bee culture that appear therein from time to time.

Most of these contributions are from the pen of the Bee Instructor, who is surely in the most favoured position for collecting and trying out the latest ideas on beekeeping in use in different parts of the island. Occasionally, however, some other Jamaica beekeeper rolls up his sleeves and moves away the enveloping bushel so that his light also, be it large or small, shall be a guide to his worried beekeeping brethren.

One such beekeeper was of special assistance to me during my early struggles, though I have only one of his writings. That was Mr. A. H. Rogers, of Half way Tree, who contributed an article entitled "A Year's Work in the Apiary" to the May, 1927 number of the Journal. I had not yet read Mr. Rogers' article when I made my start, but it was largely due to the advice there given that I avoided the mistake, when moving the bees to a new location, of placing them on an exposed site where they would have suffered severely from the cold winds of December to February.

Another good tip of Mr. Rogers' was for the making of hive covers; that is, to use good white pine boards instead of light kerosine box wood. In this, however, I did not altogether follow his method, for instead of using two 13 by 9 strips with a three inch strip to cover the joint, I used six inch ceiling boards and tacked a piece of flat zinc, cut to the size of the cover, on top. Two one and half inch cleats on the under side of the cover at both ends act as stops.

Like the Bee Instructor, Mr. Rogers is a strong advocate of proper hive stands, maintaining that these should be 18 inches high and made to take two hives each. This idea did not seem practicable to me, perhaps because I am in a district that is well supplied with natural stands in the form of large boulders, or may be it is because I use full depth extracting supers, and these are decidedly heavy to lift up and down when a strong colony has finished with them. I do, however, use proper, independent pitch pine or hard wood bottom boards, as these afford much better protection from ground damp than the bottom usually used with kerosine box hives.

I hope that these notes will be of sufficient interest to induce some other beekeepers, besides the Bee Instructor, to give us of their experiences.

The Journal is of course, not responsible for the suggestions above, we however feel that an exchange of views between apiarists should be of much use.

Ed.

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Wm. Bee,
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DIRECTIONS FOR USING SULPHUR-LIME.

The following directions have very kindly been supplied by Mr. W. H. Edwards, the Government Entomologist, for using dry Sulphur-Lime which we now stock in the Society's stores;:

Place five pounds of the dry Sulphur-Lime in an iron pan, pour in 2 gallons of water and boil for 45 minutes whilst stirring constantly.

After this, allow to cool without stirring. When the solution is cool, the clear liquid, which will be used as stock emulsion, is poured off from the sediment which can be discarded.

For spraying citrus trees add 1 pint of the stock solution to 4 gallons of water.

If the trees have very tender young shoots and in the case of ornamentals 1 pint of stock solution can be used in 6 gallons of water.

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(*Extract from the Canada-West Indies Magazine, December,* 1934.)

BERMUDA VEGETABLES IN 1934.

Tomatoes again proved the most profitable commodity sold in Canada and ten thousand more crates were shipped than in the previous year. Ninety-six per cent. of the crop was graded and packed in the Government Packing Houses, for which a charge of ten cents per crate was made. Tomatoes have consistently sold well in Canada since the first shipment was made in 1925, and increasing attention has been paid by the Department of Agriculture to market them in the most attractive form. Two large Packing Houses, each equipped with a twenty-four bin Cutler Grader, can now grade, pack and wrap up to 3,000 cratesa day.

Late in the season of 1930 the first Government Packing House was opened and 1,333 crates of vegetables were packed. During 1934 the 100,000 mark was reached and passed. At first no charge was made for packing, but in the last two years the farmer has paid for this service, although he is under no compulsion to bring his crops to the sheds, and can pack them on the farm if he wishes.

All Government ventures have their critics and the Bermuda Packing Houses have been no exception to this rule. But it would be waste of time to answer such criticism in the face of these figures, which speak for themselves. Also it has been very noticeable that farmers who are among the severest critics invariably arrive first on the scene with their vegetables when the Packing Houses open up for the season's work. Probably much of their criticism can be attributed to those grumbling tendencies mentioned earlier, without which it is popularly supposed the farmer would be downright unhappy.

Government vegetable marketing in the Colony has lost a tower of strength in the retirement of Mr. E. A. McCallan, for fourteen years the Director of Agriculture. No man has done more to encourage the development of the Canadian market. Long before New York ceased to be profitable he was advocating that a footing should be obtained in Canada; for with tariff walls going up all over the world he could plainly foresee the present conditions, which have practically barred Bermuda produce from the United States. During the crop seasons he was indefatigable in his efforts to forward Government packing, and no one worked harder to ensure that the produce arrived in Canada in its most saleable form.

Depressions do not last for ever, and sooner or later the farmer will come into his own. Then the invaluable work of Mr. McCallan will be seen in its true light, for Bermuda will be already established in and able to take advantage of, a market which is rich in its possibilities of sound prices and increasing volume trade.

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A SYNTHETIC HORMONE.

?xtract from the Journal of the Ministry of Agriculture, England, December, 1934.)

It is announced from Zurich that androsterone, the male sex hormone, .s been prepared artificially. Even in an age of scientific marvels is is a notable achievement. The nature of hormones, those queer affic directors of the living body, is still imperfectly understood; for e most part hormones are obtained only with great difficulty. itherto, such as have been extracted, have found application mainly medicine; there are others for which conceivably economic use in her directions may shortly be found—fecundity in fowls and lactation mammals are apparently both controlled by secretions of ductless ands. The imagination is apt to run riot with the contemplation what *may* follow from the synthesis of a typical hormone. Practical sults do not always follow scientific advances of course. Many boratory discoveries remain for generations mere academic "exhibits." may be that such a fate awaits this particular discovery. None e less the observant will store it in the "matters pending" file of emory.

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PREGNANCY TEST FOR MARES.

(Extract from the Journal of the Ministry of Agriculture, England, December, 1934.)

It is not recognised as widely as it deserves that a biological test of a mare's urine can be made to detect whether she is pregnant. The basis of the test depends upon the hormone content, and its reliability is such that from the sixtieth day after successful service it is possible to diagnose pregnancy with an accuracy of about ninety-eight per cent. The test requires the collection of about one teacupful of urine from the mare. The urine is treated to remove certain toxic products, following which it is neutralized and mice are injected with controlled doses. If the urine contains the hormones associated with pregnancy, cornification of vaginal epithelium of the test mice takes place. It is easy to recognise the practical significance of a pregnancy test, particularly as a means of increasing confidence in the case of breeding mares that are offered for sale. The investigations that have lead to this development have been conducted at the Institute of Animal Genetics at Edinburgh.

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BRANCH NOTES.

All Reports received are acknowledged in this section of the Journal. This month we have only been able to put in print Notes from Branches who have not yet had a publication this year.

Branch Secretaries should **write on one side of the paper only.**

[Ed.

MANCHESTER: Bellefield.—Meeting 2nd February. Present: Mr. D. D. Phillips, J.P., presiding, Instructor H. A. Darby, and fourteen others. Instructor Darby gave a splendid report of the Half-Yearly Meeting in December. Members pointed out that owing to the very dry weather they could not plant out the vegetable seedlings they had. Mr. D. D. Phillips urged co-operation to produce enough vegetables to meet the demand of the markets abroad during the coming season. He offered a further supply of seed purchased at his own expense which he would distribute as soon as the rains began to fall. As a member of the Banana Insurance Committee he promised to give some facts regarding the Banana Insurance as well as the citrus industry at the next meeting. The meeting concluded with the singing of the National Anthem.

Williamsfield P.O. M. J. MORGAN,
Secretary.

Devon Potato Growers' Association.—Meeting 1.2.35. Present: Mr. A. J. Hay, 1st Vice-President in the chair, ten other members, Instructor J. A. Graham, and one visitor. There was a discussion on the possibility of storing potatoes. A resolution was passed asking the Department of Science and Agriculture to obtain expert knowledge, and to experiment so as to ascertain the best method of storing potatoes in Jamaica. The Instructor gave a splendid address on how to maintain the fertility of the soil. The gathering appreciated his address very highly, so much so that he was asked to repeat it at the March meeting, when the attendance would be more representative of the agricultural population of the districst around. The meeting resolved itself into a discussion group and several questions asked by individuals, as well as important subjects

connected with agriculture, were dealt with. The meeting closed with the singing of the National Anthem.

Mile Gully P.O.

H. E. Gayle,
Secretary.

Maidstone.—Meeting 26.2.35. Present: Rev. J. A. Black, President; nine other members, and Instructor Darby. Re pimento disease the Instructor observed that it was far less here than in other places, and that there was hope for a good crop. Letter re the May Pen Show was submitted and all promised to do what they could for its success. The Instructor spoke on the importance of coffee as being the only exportable crop really adapted to the locality—citrus and banana being unsuitable on account of local conditions and showed that by the people's way of pruning (i.e. by cutlass) they were rendering the trees fit to house ants, and to take in water. He brought a saw, and a pair of pruning shears for the Branch to buy for the use of its members. when he hoped they would see the use of them and secure their own. The members agreed to purchase them, and arranged how they were to be used. One arrest was reported by Authorised Person James Dennis.

Maidstone P.O.

D. A. Wellington,
Secretary.

Royal Flat.—Meeting held Congregational Church Hall. Present: N. Nash, President; 10 members, 4 Authorised Persons, the Instructor, 3 Officers. Prayer, Minutes, Correspondence as preliminaries. Letter from the Hon. C. A. Reid, acknowledging receipt of Resolution. Instructor Darby presented saw and clipper. The Branch purchased these and thanked the Instructor. Tools to be kept by the Treasurer, Mr. Fredericks, and used only on members' holdings. Authorised Persons reported O.K. Equipment ex-examined and passed. The Instructor asked to investigate possibility of getting the Government to subsidize a bull on any of the nearby dairy pens, so as to improve milch cows in the district. The Secretary was instructed to write the Superintendent Public Works, Manchester, re purchasing of corn direct from the growers. Arrangements were completed on matter of Secular Concert in April on behalf of the Branch. National Anthem closed the meeting.

Williamsfield P.O.

H. Lister Johnson,
Secretary.

CLARENDON: Brandon Hill.—Meeting 18.2.35. Present: Instructor W. L. Shirley, Mr. T. Matthews, 2nd Vice-President, presiding; 26 other members and 5 visitors. Matters relating to the Show and the procuring of vegetable seedlings for members of the Branch, were discussed. Correspondence was dealt with. The Secretary submitted Christmas Seals for sale in aid of the Anti-T. B. League and the members responded by purchasing all the seals that were in hands of the Secretary. A dialogue by Master H. Manning and Miss L. Williams was ably given. They were thanked. Three Authorised Persons reported. One made two arrests, and another made one. Instructor Shirley gave an inspiring address, brimful of useful hints and instructions to planters. His subject was Agricultural Prosperity. He also appealed for a strong support of the Show. A vote of thanks was given him. After minor matters were dealt with the meeting adjourned by the singing of the National Anthem.

Colonel's Ridge P.O.

E. A. Graham,
Assistant Secretary.

Kellits, Chapelton.—Meeting February 13. There was a fair attendance. Miss R. McDonald, 2nd Vice-President, presided. The Grindstone Fund was again discussed The Secretary stated that sufficient funds were not yet in hand to purchase a large one The Ginger Competition was discussed. The Instructor encouraged members to improve their ginger cultivation as it is one of the most payable of our products. On the suggestion of the Instructor, it was decided that the members visit the Richmond Park Branch during March in order to see the interest taken in agriculture by that particular Branch. Matters relative to the Agricultural Show at May Pen, were discussed at length. Members were encouraged to prepare exhibits for that Show. Minor matters received attention and the meeting adjourned.

Woodhall P.O.

(Miss) I. E. Williamson,
Secretary.

ST. ELIZABETH: Bull Savanna.—Meeting 8th February. Present: Messrs. J. T Linton, 1st Vice-President, 21 members and 3 visitors. The Secretary was instructed to request Instructor Lynch to postpone the judging of the Peanut Competition to 1st March. as the crop was not yet matured. • Insect pests which have been playing great havoc with cultivations for the past few years were discussed and after a very lengthy

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JAMAICA AGRICULTURAL SOCIETY.

discussion it was agreed that the Instructor be asked to come over and give a demonstration with the best insecticide for the killing of these pests. The Secretary was instructed to send two resolutions to the Board of Management re the encouragement of the growth of the Virginia tobacco and the other re road to Ballard's Valley. The meeting adjourned by the singing of the National Anthem.

Alligator Pond P.O. (Miss) E. C. ROYAL,
Assistant Secretary.

Kilmarnock.—There were 17 members, and 7 visitors present at the meeting held in February. Committees were formed to arrange matters for the Social. It was arranged, that members should go over to Bronte, and encourage the folks there to come and strengthen this Branch. The water supply question was discussed. Instructor gave a very instructive address on coffee. The meeting was brought to a close by the singing of the National Anthem.

New Market P.O. J. E. MONTEITH,
Secretary.

Upper Pedro Plains.—Meeting February 1. Present: Rev. T. E. McKay President, and 11 other members and visitors. The delegates to the meeting of the St. Elizabeth Branches Associated presented their report which was adopted by the meeting. Various members made suggestions as to how more interest could be stimulated in the Branch. Correspondence was dealt with, from which arose a free discussion on peanut growing which the members were making a serious drive at. The advisability of securing a spray for combatting the cassava caterpillar, and of getting a District Nurse for Pedro Plains was brought forward and deferred. The meeting ended with the National Anthem.

Pedro Plains P.O. I. S. MILLARD,
Secretary.

Springfield.—Meeting 1st February. Present: 10 members, the Instructor and 2 visitors. Authorised Persons reported all quiet. It was decided to sell ram for two guneas. Instructor addressed meeting. Regretted small attendance but asked for the following resolves: (1) to strengthen the Branch by getting others in. (2) To learn more about agriculture. (3) To co-operate more. He then spoke on the coffee plant and the necessity to have careful pruning of old wood and cutting out of weakly plants that crowd the others in order that better yield might be obtained. Minor matters were dealt with and the meeting rose at the singing of the National Anthem.

Springfield P.O. J. A. WOODSTOCK,
Secretary.

PORTLAND: Belvedere.—Meeting 15th February. Present: Instructor D. A. Jones, Mr. W. A. Coates, President, and five other members. The instructor congratulated the Branch on their possession of a Saanen billy. Discussion on the formation of a local Loan Bank took place and a Committee was formed to go into the matter. A new member was enrolled. The Instructor's address was based on the improvements of the Branch. He said schemes were being organized all over Jamaica and all agriculturists should combine in order that a successful issue may result. The value of a veterinary surgeon in helping to preserve the Public Health cannot be over-stressed because diseases are widely spread through improper handling of food and sick animals as in the case of bovine tuberculosis from the milk of the cow. He was accorded a hearty vote of thanks. After the Roll Call the meeting terminated by the singing of the National Anthem.

Prior Park P.O. L. C. BLAIR,
Secretary.

Fellowship.—Meeting 13th February. Present: Mr. A. J. Corrie, President, Instructors D. A. Jones and G. R. Graham, Sgt.-Major Bailey of Port Antonio who kindly attended to address the Authorised Persons, and many others. Arising out of the minutes, Instructor Graham, explained fully the Ginger Competition and encouraged the growing of ginger. He mentioned the difficulty that there was in curing ginger in this parish, but he assured them that it would be purchased by persons who would have the curing done in a less rainy parish. Letter confirming the appointment of Mr. C. Z. Morsby as an Authorised Person was submitted and noted. Mr. C. A. Smart gave a very encouraging report of the Half-Yearly General Meeting and for this a hearty vote of thanks was extended to him. Two Authorised Persons present reported no arrest. Sergeant-Major Bailey addressed the gathering, particularly the Authorised Persons and expressed his regret at not seeing the Authorized Persons from the neighbouring Branches, but hoped he would be able to speak to them at some other meeting. His address was listened to with rapt attention and he received the thanks of the House. Instructor Jones

gave a short but encouraging address in which he extended his best wishes for 1935. The singing of the National Anthem brought a well spent evening to a close.

Fellowship P.O. K. V. Corrie,
Secretary.

Maidstone.—Meeting 13th February. Present: Messrs. N. V. Thompson, President; Instructor G. R. Graham; A. T. Wilmot, Inspector of Plant Diseases, nine members and ten visitors. Letter was read from Mr. W. Harper-Watson re his gift of a halfbred Berkshire boar to the Branch. The Secretary was directed to send a letter of thanks to Mr. Watson. Other correspondence was dealt with. The President, who was the Branch's delegate to the last Half-Yearly Meeting tendered an appreciable report, which was adopted. He was heartily thanked. Instructor Graham addressed the House on (a) Cultivation of Corn (b) Cultivation and care of Coffee (c) The advisability of increasing the membership of the Branch in order to give Portland a higher position than is occupied at present. Mr. Wilmot encouraged Citrus and Coffee planting as they were lasting crops. He showed how Portland was blessed with fertile soil. Messrs. Graham and Wilmot were heartily thanked for their instructive addresses. The President pointed out the benefits and blessings which had come through the Branch which was not yet a year old. He exhorted those present to do everything in their power to improve the membership. The singing of the National Anthem brought an enjoyable meeting to a close.

St. Margaret's Bay P.O. M. L. J. Williams,
Secretary.

ST. ANDREW. Content.—Meeting February 16th. Eight members present with *Mr. Caleb Warner in the chair. Mr. Douglas spoke on the resolution from the Branch* to the Half-Yearly General Meeting re action by Government to procure foreign markets for vegetables. The delegate to the Half-Yearly General Meeting tendered his report. Special mention was made regarding the request that members should rally and make the Branches stronger. On his motion that something should be done to raise funds for the Branch and to encourage members, Mr. Lyttle proposed a Pleasant Sunday Afternoon. This was agreed to. It was agreed that the Instructor should be asked to pay the Branch a visit as his last visit was in made in September. Other matters were dealt with. The President addressed the House and the meeting rose with the singing of the National Anthem.

St. Peters P.O. F. A. Wilson,
Secretary.

Rock Hall.—Meeting 25th February. Present: Instructor A. P. Hanson, 12 members and 1 visitor. The President, who was delegate to the meeting of the St. Andrew Branches Associated being absent, Instructor Hanson gave a report of the meeting. A vote of thanks was accorded him. The Instructor gave an inspiring address. The President, Mr. W. N. Bolton, addressed the meeting very encouragingly. Authorised Persons reported on work done. An extract from the December Journal was read by Secretary, viz.: "Christmas Message," from His Excellency the Governor. The singing of the National Anthem brought a very enjoyable meeting to its close.

Red Hills P.O. (Mrs.) B. Heslope,
Secretary.

Tower Hill.—Bi-monthly meeting held 11th February. Present: Mr. S. Madden in the chair, and a good turn out of members. The purchasing of seed potatoes was discussed and decided on. Quotations for grindstones were submitted, and it was decided that one should be purchased. The road matter was again brought forward, and it was thought that some further enquiry should be made about it. The question of proper water supply for the district was brought up and deferred. The Secretary was instructed to forward the names of the two newly nominated Authorised Persons to the J.A.S. The question of fertilzers for small vegetables was discussed and it was decided to seek information from the Secretary of the J.A.S. It was much deplored that the services of the Instructor seem to be denied this Branch, seeing that from October, he has not visited. The National Anthem was sung and the meeting closed.

Mavis Bank P.O. A. V. Hague,
Secretary.

ST. MARY. Highgate.—Meeting 13th February. There was a scanty turn out of members. Instructor C. Henderson was present. After a few matters were dealt with including the proposed Show for 1936, the Instructor in his usual forceful and eloquent manner entertained the members to a most edifying and instructive talk on the planting of Irish potatoes. He was heartily thanked. The Vice-President encouraged members to put in practice what the Instructor had said. The members thought it would be a useful

proposition and would start right away to prepare the soil for the purpose. After the singing of the National Anthem the meeting rose.

Highgate P.O. E. W. PARKINSON, Secretary.

Jackson.—Meeting 14.2.35. Present: The Instructor, the President, ten members and a few visitors, including the Rev. C. S. Brown After some discussion, it was agreed to petition the Legislative Council through the Western St. Mary Citizens Association for a main road to serve many productive and thickly populated districts and the Secretary was instructed to prepare the petition. The necessity for the provision of suitable accommodation for animals at the Port Maria Market was pointed out as at a previous meeting. The Secretary remmded the House that the Board was written to on the matter and that a favourable reply was received. He was instructed to write again if the promise was not fulfilled. Two Authorised Persons reported. In a practical address, the Instructor advised members to plant citrus, coffee, Cavendish Banana or timber on Panama Diseased lands. He also stated that citrus plants at 3d. each and timber seedlings free of cost could be obtained from the Government on application to him. Advice to use fertilizers was also given. Following the discussion of a few minor matters, the National Anthem terminated the meeting.

Bonny Gate P.O. H. S. HALSTEAD, Secretary.

Lucky Hill.—Meeting 19.2.35. Present; Mr. T. A. Burke, 3rd Vice-President, presiding Instructor L. A. M. B. Coke, nine other members and some distinguished visitors.. The matter of the Cemetry was reported on by the Secretary, and Mr. C. L. A. Stewart, a member of the Parochial Board gave valuable information on the matter. It was decided to keep the matter on the Agenda, as also the Ham and Bacon Industry. Two Authorised Persons reported on their work. Three new members were elected. The S. 19 Bananas was then discussed, and the Instructor was asked to take up the matter with Mr. Whittingham, Plant Disease Inspector to secure a few suckers. The Instructor spoke on Panama Disease and the oil for the treatment, and spoke on some of the facts he gathered from planters who used the oil. The Cbairman spoke on the Milk and Butter Industry and stated what he saw in the papers, relative to the propsed subsidy by the Government. The Instructor gave his views on the matter; after a lengthy discussion it was decided to write to the Member for the parish to fix a time for a public meeting to discuss the matter. The Instructor asked that the Branch aim at not less than 50 members for the ensuing year and suggested that a plot be procured to plant crops so as to give members encouragement. Other matters were discussed and the meeting terminated with the singing of the National Anthem.

Lucky Hill P.O. F. WRIGHT GEOHAGHAN, Secretary.

Mt. Regale—February 1st was the day fixed for Branch Meeting. Instructor Chas. O. V. Henderson visited several holdings and performed satisfactory work. The Instructor gave a brief explanation on yam-planting. He dealt chiefly with the method of digging the hills and the best variety to be planted. After the meeting he lined several chains of trenches to be cut in the Secretary's field.

Mt. Regale P.O. T. H. HANNAM, Secretary.

Rock River.—Meeting 25th February. Present: Mr. A. V. Ross, President, eigtht members and four visitors. Authorised Persons made reports. Minor matters were dealt with, and the meeting terminated after the singing of the National Anthem.

Mt. Regale P.O. J. A. BOWEN, Secretary.

Central St. Mary—Meeting 14.2.35. Present: Mr. F. A. Williams, presiding, eight members and two visitors. Mr. C. L. Williams gave a report of the Half-Yearly General Meeting. He was heartily thanked. The President reported that Mr. N. McGibbon was no more an Authorised Person for the Branch. Notice was given that the Annual Meeting would be held in April next. The meeting was brought to a close by the singing of the National Anthem.

Richmond P.O. C. L. WILLIAMS, Hon. Secretary.

Wood Park.—Meeting held 13th February. Present: Mr. S. M. Roche, J.P presiding, nine members and about six visitors. Instructor Coke reported that the proposed Scout Show which should have been held in Port Maria had been postponed, due to the fact that the Governor was unable to attend. He mentioned that an All Island Show would be taking place at May Pen on Easter Monday and urged all to do their best to support

it and to try and attend. Mr. E. L. Silvera, the delegate to the Half-Yearly Meeting in Kingston, gave a splendid report and a vote of thanks was accorded him. Due to the smallness of the attendance, it was decided to have the report read at the next meeting. A discussion on Panama Disease took place. Two Authorised Persons gave their report. Several members reported the activity of yam thieves. Mr. Coke spoke on the Goat Industry in Jamaica and mentioned that he had succeded in procuring a splendid ram from Mr. Sutherland for the Blackstonedge Branch. The meeting was brought to a close with the singing of the National Anthem.

Pembroke Hall P.O. C. L. A. STEWART,
Secretary.

HANOVER: Windward—Meeting 16th February. Present: 9 members and Instructor Hastings. Mr. J. Z. Malcolm presided. The proposed "Banana Competition" was discussed. It was finally agreed that instead of the "Banana Competition" a "Coffee Competition" should be carried through at the end of the current year. The details were deferred till the next meeting. The hour for holding meetings was changed. Resolution re Road No. 1 Hanover Windward was carried unanimously. The Secretary was instructed to write to Authorised Persons regarding their reporting on their work at the monthly meetings. After matters of minor importance were dealt with the meeting terminated with the singing of the National Anthem.

Great Valley. J. Z. MALCOLM,
Secretary.

ST. THOMAS.: Hagley Gap.—Meeting 22.2.35. Instructor U. A. McLaren was present. It was reported that the Mutual Aid Scheme fell through. The meeting held that there should be no break and it was decided to carry on the work at Mr. N. B. Clarke's field on 5th March. Correspondence regarding Authorised Person A. Oliver was dealt with and the Secretary was instructed to take up the matter again. The Instructor, speaking on citrus, encouraged the Marsh variety of Grape Fruit and the Valencia oranges. He was tendered a vote of thanks. The meeting adjourned.

Hagley Gap P.O. J. B. HEYWOOD,
Secretary.

Wilmington.—Meeting 6.2.35. Present: Messers. C. M. Hart, President; U. A. McLaren, Instructor; Hon. R. Ehrenstein, M.L.C., Mr. Barton of the Gleaner Coy., 24 members and many visitors. As arising from the minutes mention was made of Land Settlement Scheme, which was brought to the attention of the Hon. Member. The Instructor said he was pleased to see coffee growing in the district and encouraged its cultivation also that of citrus, coconuts and breadfruit. He also spoke on the Panama Disease, and moved a resolution for preventing the purchasing of food taken from affected areas. Two addresses were presented to the Hon. Member—one from the Branch and one from Cary Hall District. Several members spoke expressing the needs of the district. *The Hon. Ehrenstein gave a splendid address in which he outlined his willingness* to assist any cause for the betterment of the district. He told of the possibility of establishing a Post Office at Wilmington this year, and expressed his sympathy regarding the poor water supply and bad roads which he would use his influence to see improved. The meeting ended with The King.

Morant Bay P.O. W. A. THOMPSON,
Secretary.

ST. CATHERINE: O'Meally.—Meeting February 28th. Mr. S. H. Anderson, presided. Correspondence was dealt with. One Authorised Person reported "All Correct." Matters relative to the forthcoming May Pen Show was dealt with. The Secretary was directed to forward a resolution re prevention of Tuberculosis, to the Parent Society. The district's water supply was next dealt with. A Committee was formed to go into the matter. The House agreed to arrange a public meeting to be held at an early date to deal with matters preltaining to the welfare of the districts. The Secretary was directed to invite the Hon. Member and Custos for the parish and other public gentlemen to the meeting. Minor matters were dealt with and a successful and profitable meeting adjourned with the singing of The King.

Harker's Hall P.O. AMOS A. HENRY,
Secretary.

Sligoville.—Meeting February 6th. Present: Instructor C. S. Byles, the President, a few members and one visitor. Delegate's report was given by the President in a very comprehensive manner. A hearty vote of thanks was accorded him. The Instructor gave an interesting address. He showed the need for mass cultivation and the benefit that can be got therefrom. He also impressed on the people to plant corn extensively, also ginger, and Irish potatoes. He encouraged the members to co-operate so as to

make the Branch a success. He was heartily thanked for his able address. One Authorised Person reported all correct. The meeting came to a close by the singing of "The King."

Sligoville P.O. E. B. REID,
Reporting Secretary.

ST. JAMES: Salt Spring.—Meeting 3.2.35. Present: Mr. G. W. Anglin, the President, Instructor Marr and over thirty members and visitors. The following business was transacted. Getting of 10 bags, P.O.J. canes for planting in April. Authorised Persons reported all correct. Delegate (Mr. G. W. Anglin) to the Half-Yearly Meeting gave a clear and concise report. He was accorded a hearty vote of thanks. Resolution that butchers in every district should obtain and keep receipts of small stock purchased, so as to aid the Police in cases of larceny, was deferred to be sent through the St. James Branches Associated. Instructor Marr's address was on "The Uses of the Jamaica Agricultural Society." He shewed the necessity of more co-operation, more up-to-date and scientific methods of cultivating and the need of selling such products as will result in our obtaining a good reputation. His suggestion that sugar-cane growers should "pool" and sell to the Estates was a timely one, and was highly commended. Mr. R. Clarke moved a resolution that the Society place on record its deep regret at the death of its 1st Vice-President, Mr. Joseph East. Hon. P. F. Lightbody was unavoidably absent. The meeting was brought to a close by the singing of the National Anthem.

Montego Bay. LLEWE E. DILLION,
Secretary.

TRELAWNY: *Correction.*—Spring Garden, Rock Spring.—In the January issue of the Journal it was stated that "Mr. G. Clarke was appointed delegate to attend the Half-Yearly Meeting This should read "Mr. G. Clarke, seconded by Mr. R. Coy, nominated the President as delegate to attend the Half-Yearly General Meeting.

Ulster Spring.—Meeting 11th February. Rev. J. A. Edwards presided. There were a few members and visitors present. The Instructor was absent owing to illness. This the meeting regretted. Authorised Person present reported all correct. There was a brief discussion on Water Rates. Price list for the May Pen Show was shown to members The Agenda was fixed for the next meeting and the meeting closed with tbe singing of the National Anthem.

Ulster Spring P.O. IVY C. WILLIAMS,
Secretary.

Wakefield.—Meeting held February 5th. Present: Mr. C. R. Browne, 1st Vice-President, presiding, and several other members. The Secretary reported the non-attendance of the delegate to the Half-Yearly General Meeting through the insufficiency. of funds. One Authorised Person gave his report. It was announced that the Penny Bank accounts would be audited. Mr. C. R. Browne was appointed Auditor. The Secretary read from the September Journal the Article "Lecture given on Soil Fertility during the Open Week at Hope." After minor maters were dealt with the meeting adjourned.

Wakefield P.O. E. S. BLISS,
Secretary.

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Other Repoerts Received.

Branch.	Date of Meeting.	Attendance.	Business.	Secretary.
St. James.				
Bickersteth ..	7.2.35	10	Juvenile Society. Talk by Instructor Marr.	Leo. Spence.
St. Catherine.				
Buxton Town	20.2.35	16	Reports from Authorised Persons and Working Committee. Address by Instructor Byles.	A. B. Walters.
Princessfield ..	25.2.35	..	Report from Authorised Persons. Address by Instructor Byles.	P. G. C. Graham.
Victoria ..	21.2.35	..	May Pen Show. Excursion to Grove Place Farm. Addresses by T. P. V. McDaniel, Esq., Glaister Baxter, Esq. and Instructor Byles.	M. L. Burrell
Portland.				
Craigmill	5.2.35	..	Citrus, Agricultural implements. Address by Instructor Jones.	Rev. T. Lawrence.
Moore Town	5.2.35	..	Poultry Rearing. Reports of Parish Association Meeting and General Meeting. Address by Instructor G. R. Graham.	R. S. Anglin.
Regale	26.2.35	25	Authorised Persons' reports. May Pen Show. Address by Instructor Jones.	G. I. Campbell.
St. Mary.				
Belfield ..	12.2.35	7	Authorised Persons. Show.	M. L. Rennalls.
Epsom ..	6.2.35	10	Report of Half-Yearly General Meeting. Authorrised Persons. Address by Instructor Henderson.	Fred. A. Edwards.
Marlborough	26.2.35	42	Budding. Election of Officers Juvenile Society. Report of delegate to Half-Yearly General Meeting. Authorised Persons. Address by Instructor Henderson.	D. A. Ford.
Trelawny.				
Deeside ..	6.2.35	..	Boar. Crown Lands. Report of delegate to Half-Yearly General Meeting. Authorised Persons. Address by Corporal Ricketts.	E. Morle.
Clarendon.				
Pleasant Valley	19.2.35	..	Show. Bombay Mangoes. Citrus. Addresses by Mr. Rickman and Instructor Virtue.	(Mrs.) A. A. Flyter.
St. Andrew.				
Westphalia	26.1.35	13	Road. Vegetable. Care of coffee. Trenching. Address by Instructor Miller.	A. Hibbert

Jamaica Agricultural Society.

MEMBERS' EXCHANGE COLUMN.

The following are offered *for sale.*

Description Produce or Livestock.	Price.	Name.	Address.
Pure bred and half bred Essex and Berkshire Pigs, ready for delivery	On application	W. Harper Watson	St. Margaret's Bay.
Sheep manure· reasonable prices, excellent for vegetables and gardens	..	Secretary	J. A. S.
Goat manure	3/- 100 lbs.	Secretary	J.A.S.
Indian Kale Plants	On application	Secretary	J.A.S.
One Brown-Swiss Bulkin, 18 months old and one Montgomery-Jersey Bulkin, 21 months old.	On application	Secretory	J.A.S.
Large Australorp Cockerels, (Imported) 7 months old	To be arranged	Miss Doris Miller	"Beechwood," Lyndhurst Road, Cross Road.
1 Saanen Ram, pure bred, 1 year old.	Two Guineas	Mrs. F. C. Jackson	Gayle
14 Marsh Seedless and Silver Cluster Grapefruit plants	9d. and 6d. each	W. G. Heron	Hartlands.
Valencia Orange plants	9d. each	W. G. Heron	Hartlands.
Parson Brown plants	6d. each	W. G. Heron	Hartlands.

The following are required—

Description Produce or Livestock.	Price.	Name.	Address.
One pair used wagon wheels in good condition, 3 ft. 10 ins. high, 1½ins. tyres.	Please state.	Rolland Shaw	Alligator Pond P.O.

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*ARSENITE OF SODA.	
Supplied in original unopened drums only.	
100 lb. Drum	£1 10 4
50 lb. "	0 15 2
25 lb. "	0 7 7
The cost inclusive of drum and crates.	
Drums and crates are not returnable.	
PARANAPH	3d. per lb
CARBON BI-SULPHIDE, for use in the fumigation of corn, etc., attacked by weevils and for the destruction of ants and grubs in the soils as well as for treatment of clothes and books *suffering from insect attacks*	9d. per lb.
Also to be had in 56 lb. Drum at	£2 2 0
N.B.—All orders for Carbon Bi-sulphide must include the cost of the iron drum for storing. When drum is returned *in good condition, a refund of cost will be made.*	
Iron drums for storing (to hold 5 lbs.)	3/6 each.
" " " (to hold 10 lbs.)	5/4 each.
THYMOL POWDERS, for worms and bots in horses and mules	4d. per pkt.
RAT POISON (supplied to Licensed Druggists only). In bulk including cost of container	7d. per lb.
Put up in strong Manilla envelopes holding one ounce each	9d. per 16 pkts.
N.B.—Orders for less than 16 packets not accepted. All applications must be accompanied by an agreement to retail the poison to the public at a price not exceeding one penny per packet, one penny per ounce or nine pence per lb.	
CYANOGAS. 1 lb. Tin "A" dust	1/10 per tin.
5 lb. Tin "A" dust	9/- per tin.
5 lb. Tin "G" fumigant	7/4 per tin.
25 lb. Tin "A" dust	£1 9 2 per tin
25 lb. Tin Citrus dust	£1 9 2 per tin
*TESTING OUTFITS, COMPLETE, including cost of containers and mailing case	7/2 each
*STANDARD IODINE SOLUTION, in 9 oz. bottles (including cost of bottle, 6d., and mailing case 2/-)	3/- each.
*STARCH SOLUTION, in 6 oz. bottles (including cost of bottle 4d. and mailing case 8d.)	1/3 each.
*SODIUM BICARBONATE, in 6 oz. bottles (including cost of bottle 4d., and mailing case 8d.)	1/3 each.
*25 C.C. CYLINDERS (for dip testing)	2/2 each
*MIXING BOTTLES (" " ")	4d. each
FLY KILLER for the extermination of flies, mosquitoes, etc.	5/- per gal.

N.B.—Purchasers of Fly Killer must provide their own containers

Credit given for all containers returned in good order, if originally charged for

Supplied by Rail or Post, carriage free. Freight chargeable on supplies by Coastal Boat.

All orders should be addressed to "The Director of Agriculture, Kingston P O and must be *fully prepaid.*

State full address, nearest railway station or shipping port.

*Supplied to owners of Registered Dipping Tanks only.

THE JOURNAL
OF THE
Jamaica Agricultural Society.

The more people do the more they can do; he who does nothing renders himself incapable of doing anything; while we are executing one work we are preparing ourselves for undertaking another.

Vol. XXXIX. APRIL, 1935. No. 4.

BOARD OF MANAGEMENT.

The regular monthly meeting of the Board of Management of the Jamaica Agricultural Society was held at the office of the Society, 11 North Parade, Kingston, on Wednesday, the 13th March, 1935, at 11.30 a.m. There were present: Mr. T. J. Cawley, First Vice-President in the chair, Rev. W. J. Thompson, Second Vice-President; Hon. A. C. Barnes, Director of Agriculture, (*ex officio*), Messrs. H. E. Lewis, U. Theo. McKay, D. D. Phillips, S. M. Walker, W. Harper Watson, and W. H. W. Westmorland; Mr. P. St. L. Bacquie, Supervisor of Instructors and the Secretary, Glaister Baxter. Eight Agricultural Instructors who waited on the Board as a deputation also attended for the first part of the meeting.

The Rev. W. J. Thompson asked that the standing orders be suspended and moved the following resolution:—

"That this Board, meeting as it does for the first time since the demise of Mrs. T. J. Cawley, late wife of our First Vice President desires to place on record its deep sympathy and sorrow with him; and sincerely pray that Eternal love will comfort and cheer him and that the Invisible Hand will sustain him in his time of grief and sorrow."

This was seconded by Mr. McKay.

Mr. Barnes said he wished to associate himself and his Department with the expressions of sympathy.

The motion was unanimously carried.

The Chairman thanked the Board for their expressions of sympathy.

The Board stood in silence for a short period as a mark of respect.

Apologies for Absence.—

Apology for absence was tendered on behalf of Mr. T. R. Williams.

Confirmation of Minutes of the previous Meeting.—

The minutes, copy of which had been sent to each member of the Board, were taken as read, and on the motion of Mr. McKay, seconded by Mr. Phillips, were confirmed.

Mr. McKay moved the suspension of the standing orders to receive a report of the interview of the Board in Committee with the eight Instructors who waited on them as a deputation.

This was seconded by Mr. Lewis and carried.

Instructors Deputation.—

The Committee reported that the Instructors deputation represented the necessity for early action for the realization of a Provident or Pension Scheme and specially referred to gratuities for Instructors Banks and Buckley, recently retired.

The Committee had informed them that the matter was still one of correspondence between the Government and the Board of Management and that there was a letter from the Colonial Secretary to be considered on that day's agenda on the subject. The letter was read.

The Instructors deputation had suggested the grading of Instructors on the basis of six First Class Instructors and ten Second Class Instructors.

They had been asked by the Committee to submit definite proposals on the matter in writing.

The Board of Management noted the report and on the suggestion of the Chairman it was decided that as the Board as a Committee had not had enough time to deal with all the matters that the deputation intended to submit to them the deputation should continue to make their representations.

The deputation then suggested co-operative purchasing of motor cars and accessories and asked the Board of Management to facilitate them by permitting payments to be made out of their salaries to firms with which they might be able to make satisfactory arrangements.

The Board suggested that the deputation select a small Committee to confer with the Secretary and to make definite arrangements which could be submitted to the Board for their consideration.

The deputation then took up the question of loans to Instructors.

The Board pointed out the present state of their finances, but promised that the matter would be sympathetically considered.

The deputation stated that they decided not to discuss the question of extra travelling for Instructors which had been included in the matters to be brought to the attention of the Board.

The deputation then discussed the question of payment of transfer expenses to Instructors and cited the case of Instructor Kelly who claimed that his entire transfer expenses had not been refunded by the Board.

The Secretary said that the matter had been referred to the First Vice-President by the Board and the item for the removal of some of the Instructor's effects to a destination other than that to which the Instructor had been transferred had been disallowed.

The Secretary was instructed to bring this matter of Mr. Kelly's transfer expenses before the Board at their next meeting.

Instructors McLaren and Coke joined in thanking the Board on behalf of the deputation for the courteous and sympathetic reception they had received.

Matters arising out of the previous Minutes.—

(a) *Statement by Secretary* was presented as follows:—

12th March, 1935.

To the Board of Management:

Gentlemen,

As instructed by the Board at their meeting held on the 2nd January last, copies of the resolution regarding the delivery of storm warnings have been forwarded to the Elected Members of the Legislative Council.

All other correspondence consequent on the deliberations of the Board at their last meeting has been carried through.

(Sgd.) Glaister Baxter,
Secretary.

The Secretary stated that with reference to the resolution dealing with the issuing of storm warnings he had received a letter from the Hon. Dr. Hudson, stating that he would assist as far as he was able.

(b) *Estimates—Report of Deputation.*—The Chairman stated that the deputation appointed by the last meeting to wait on His Excellency the Governor with a view of if possible securing an additional sum to the

proposed subvention for 1935-36, had met His Excellency on the morning of the 5th March.

The Secretary then read the following report:—

12th March, 1935.

To the Board of Management:

Gentlemen,

Your deputation appointed to meet His Excellency the Governor to discuss the Society's Estimates for the coming financial year met His Excellency at King's House on the morning of the 5th March.

The entire personnel of the deputation was present and the Secretary was in attendance. The deputation was courteously received by His Excellency the Governor and he was attended by the Hon. A. C. Barnes, Director of Agriculture.

The entire financial situation of the Society was placed before His Excellency and among others the following points were emphasized:

That the present year's commitments of the Society, now that our reserves are nearly exhausted, require a larger subvention than £10,000 per annum.

That the additional £1,000 granted over and above last year's subvention had been definitely earmarked by Government as per the letter of the Hon. Colonial Secretary on the subject, to be spent on the new premises acquired, for modification and provision of storage space.

That therefore the actual operating subvention could be regarded as only £10,000.

The deputation represented to His Excellency that the Board of Management felt that haphazard increases to salaries to employees of the Society was unsatisfactory, and that by resolution and regulations an incremental system was created but that in view of the Society's dependence for finances on Government that the Board had included a safeguarding clause in the resolution and regulations. This safeguarding clause was that when funds were not available to give complete distribution of the increments, that officers of the lower grade be given preference. That this increment and grading system form no part of the contract with the employees but be the guide of the Board of Management. This to obviate legal liability. We emphasized that the Board considered increments a moral liability on the Society and an important contribution to the efficiency and morale of the staff.

The following items were mentioned as being most desirable in the interest of the country and the Society:—

Material for Instructors' demonstration	£50
Citrus Budwood	25
Juvenile Branches	10
Assistant Secretary	260

His Excellency expressed doubt as to the wisdom of appointing an Assistant Secretary.

It was pointed out that the Board considered this a more advantageous and economical alternative to providing another Supervisor on the staff which had been the case previously.

His Excellency expressed favourable opinion with regard to the encouragement of Juvenile work.

The deputation pointed out to His Excellency that the annual subvention both in money and in Government Officers seconded for duty with the Society had been decreasing right along and was less to-day than it was in 1929-30.

The Director of Agriculture spoke very favourably in support of the arguments used by members of the deputation, and His Excellency said that he would not rule on any of the details of the Estimates as he considered that the Board of Management of the Society was in a better position to deal with these details than he was. If the reconditioning of the new building could be executed to his satisfaction for less than £1,000 he would have no objection to the balance available of the increased subvention being used for other proper purposes at the discretion of the Society.

The deputation therefore recommends to the Board that they consider the revision of the Estimates for 1935-36, as submitted to Government in view of the changed situation arising.

(Sgd.) GLAISTER BAXTER,
Secretary.

After a short discussion the Secretary was directed to have the report as presented confirmed by the Hon. Colonial Secretary.

Further consideration of the Estimates was deferred.

(c) *Report from Live Stock Committee.*—The Secretary stated that this matter was deferred from the last meeting, and as directed he had forwarded a copy of the report to each member of the Board.

Mr. McKay spoke on the subject, and on the motion of Mr. Thompson, seconded by the Chairman, the meeting adjourned for luncheon.

On the resumption there were present: Mr. T. J. Cawley, in the chair, Rev. W. J. Thompson, Messrs. U. Theo. McKay, H. E. Lewis and D. D. Phillips; the Supervisor of Instructors and the Secretary. Hon. A. C. Barnes, Messrs. W. Harper Watson, and Sidney Barton attended during the course of the meeting.

Messrs. Thompson, Lewis and Barton and the Chairman spoke on the subject of the report of the Live Stock Committee.

After the discussion the Director of Agriculture suggested that the Board adopt the portions of the report that they approved of as those recommendations would be useful to the Government Committee considering the question.

The Chairman said that the report of the Committee could not be amended by the Board.

Mr. McKay moved that the report be tabled.

This was seconded by Mr. Phillips.

The Chairman suggested that the report be recommitted to the Live Stock Committee with the request that the recommendations dealing with the beef section of the industry and those dealing with the butter section be set out separately.

Mr. McKay, with the consent of Mr. Phillips, withdrew his motion in favour of this suggestion which was unanimously adopted

(d) *Live Stock Subsidy: Ram for Labyrinth, Cascade, etc.*—The Secretary submitted letter from Instructor Coke, stating that the Branches concerned had finally decided to purchase the Billy goat they had booked from Mr. J. B. Sutherland and that the animals available for utilising the services of the animal would be about 200 for the area. The Branches that would benefit would be Turnberry, Blackstonedge, Lucky Hill, Labyrinth, Cascade and Wood Park.

After some discussion, on the motion of Mr. Phillips, seconded by Mr. McKay, it was decided that the subsidy should be given.

The Secretary was directed to submit a report on this animal after nine months.

Mr. Thompson asked to be excused and left the meeting.

(e) *Letter from Director of Agriculture re Pimento Industry.*—The Secretary read the following letter from the Director of Agriculture:—

No. CA: 511. Hope, Kingston,
28th February, 1935.

"I am in receipt of your letter No. 581, dated 11th February, 1935, referring to the resurrence of pimento blight in Manchester.

2. Reference to paragraphs 18 and 19 of the report of the Microbiologist on this subject will disclose that damage from the disease was anticipated this year. The disease is still being enquired into and on receipt of further information from England it may be possible to clear up certain points which are not at present fully understood. There is, however, no possible economic means of control other than by climatic conditions, because of the widespread nature of the host plant in its wild state.

3. A further recurrence may be expected next year even with normal seasons, as there is such a large quantity of infected material in different districts of the Island.

(Sgd.) A. C. BARNES,
Director of Agriculture.

The Secretary said that he had also received from Mr. Lewis a letter addressed to him by Mr. J. B. Thursfield of Stoneshope, Newport, on the same subject, which he read.

The Director of Agriculture spoke on the subject and the Board agreed that the matter could not at present be taken any further.

Resignation from Hon. Geo. Seymour Seymour.—

The following letter from Mr. Seymour was submitted:—

Kingston,
26th February, 1935.

"I hereby tender my resignation as third Vice-President and Member of the Board of Management of the Jamaica Agricultural Society.

I regret very much having to do this, and it is not because of want of interest in the Society, but because I need all the time for looking after my affairs which have been sadly neglected by me during the past 5 years particularly.

I shall still continue as a Member of the Society, and follow the Society's progress with interest.

Please convey to the Vice-Presidents and Members my regret at not being able to continue to serve along with them, and that I wish them every success.

(Sgd.) G. SEYMOUR SEYMOUR.

On the suggestion of the Chairman it was unanimously decided that Mr. Seymour be asked to reconsider the matter, and that he be informed that if he would continue to be a member, the Board would be satisfied with whatever service he could possibly render.

Statement of Accounts.—

(a) *Statement for January.*—The Secretary said that the statement for January appeared in the minutes.

Mr. McKay asked some questions regarding some of the items which the Secretary replied to.

(b) *Statement for February.*—Statement of Accounts for February was laid on the table as follows:—

STATEMENT OF ACCOUNTS: FEBRUARY, 1935.

Receipts.				Estimates. £	s.	d.	Total. £	s.	d.
To Subscriptions				175	0	0	144	14	3
Affiliation and Journal Fees				175	0	0	172	12	6
Advertisements in Journal				200	0	0	111	10	10
Bank Interest and Sundries				10	0	0	17	11	8
Miscellaneous				10	0	0	6	1	9
Bee Industry Sales				30	0	0	26	19	5
Sales Department Profits (1934-35)				400	0	0			
Government Grant				9,500	0	0	8,708	6	8
Grant for Bee-keeping Industry				500	0	0	458	6	8
Appropriation from Sales Department and Surplus				516	13	4			
				£11,516	13	4	£9,646	3	9
Balance from 31st March, 1934							1,877	4	8
Nethersole Presentation Fund							0	2	0
Refund of Advances							461	19	10
Hire of Show Equipment							9	14	0
Shows A/c: Deposits and Other Receipts							29	12	6
Seeds Trading Account							3,566	3	10
							15,591	0	7
Less Expenditure per contra							15,243	19	3
Balance							£347	1	4
Cash in hand				53	17	6			
Cash at Barclays Bank on Deposit	£500	0	0						
Less Overdraft Current A/c	375	0	0	125	0	0			
Cash at Royal Bank of Canada Current A/c				168	3	10	347	1	4

Expenditure.	Estimates. £ s. d.	Total. £ s. d.
By Personal Emoluments:		
Secretary and Office Staff	2,014 5 0	1,892 11 4
Instructors and Supervisor	7,482 10 0	7,103 18 11
Instructors' Course at Hope	125 0 0	127 18 8
Instructors' Tools and Contingencies	100 0 0	102 1 4
Secretary's Office and Special Travelling	100 0 0	88 19 7
Printing and Stationery	100 0 0	113 5 8
Printing and issuing Journals and Reports	750 0 0	622 12 8
Rent and Rates	58 0 0	53 10 8
Rent of Telephones	27 0 0	24 6 8
Postage and Telegrams	10 0 0	8 15 10
Office Furniture, Repairs	15 0 0	10 17 4
Incidentals	50 0 0	54 6 6
Auditor's Fees	25 0 0	25 0 0
Library Books	10 0 0	10 8 8
Experiments and Livestock Subsidies	100 0 0	56 10 6
Show Equipment: Repairs	10 0 0	8 4 0
	£10,976 15 0	£10,303 8 4
Bee-keeping Industry	500 0 0	517 16 1
New Office Equipment	40 0 0	61 17 2
	£11,516 15 0	
Shows A/c: Printing	..	30 18 3
Gratuity: Mrs. Barclay	..	50 0 0
Advances to Instructors	.	461 19 10
Nethersole Presentation Fund	..	9 0 0
Holdings Improvement Competitions	.	194 1 8
Local Competitions	.	10 15 1
Plant Disease Control	..	26 10 0
Storm Relief A/c: Refund to Government	..	106 0 10
Seeds Trading A/c	..	3,471 12 0
		£15,243 19 3

(Sgd.) GLAISTER BAXTER,
Secretary and Treasurer.

DONALD MCDONALD,
Accountant.

Resolutions.—

(a) *Mr. Lewis re Inspection of Citrus Fruits.*—Mr. Lewis moved the following resolution:—

"That whereas shippers of citrus fruit suffer serious losses in consequence of rejections by Produce Inspectors, when such fruit is delivered for shipment: and whereas little or no opportunity is afforded for reconditioning or storing of citrus fruit—thus hindering trade, and forcing shippers into bankruptcy;

Be it resolved, that this Board respectfully urge on His Excellency the Governor and the Advisory Board the necessity for establishing a Board to which shippers may appeal if they feel aggrieved against the decisions of Produce Inspectors with regard to such rejections."

Mr. McKay seconded the resolution for the purpose of discussion.

Mr. Lewis spoke on the resolution.

After some discussion Mr. Phillips suggested that the Board appoint a Committee to meet with the Advisory Board for a Conference with the hope of modifying the rules and regulations now adopted by the Board in regard to citrus, as he thought there were certain defects in the Law which he would be willing to place before the Board.

Mr. McKay suggested that the defects in the regulations might be pointed out to the Board and if the Board was convinced that the regulations should be amended, they could make such recommendations

to the Advisory Board to that effect. Mr. Phillips promised to do this at the next meeting of the Board.

After further discussion Mr. Lewis said he would be willing to withdraw his resolution in favour of the suggestions made.

It was decided that the matter be dealt with at the next meeting.

Communications.—

(a) *Letter from C.S.O. re additions to Schedule of Law* 17 *of* 1929.—Letter No. 863/32, dated 19th February, 1935, was submitted stating that the Governor in Privy Council under Section 2 of Law 17 of 1929, "The Sale of the Bark of Trees (Prevention) Law, 1929" added Wild Tamarind, Bitter Wood and Bitter Damsel to the Schedule of that Law.

This was noted.

(b) *Letter from C.S.O. re Traveller's Licenses under Agricultural Produce Law.*—Letter No. 5351/34 of date 19th February, 1935, was presented, stating that after careful consideration of the question regarding the grant of Traveller's Licenses, the Government is not prepared to amend the Law at the present time, with respect to these licenses.

This was noted.

(c) *Letter from Secretary Troja Branch re Excursion to Grove Place.*—Letter from Mr. A. E. Christie was presented stating that members of various Branches of the Society in St. Thomas-ye-Vale were planning an excursion to Grove Place on the 26th April and they were soliciting the co-operation of the Secretary in the matter. They were inviting the Secretary to accompany the party on the trip and also requesting that members of the Board of Management be invited to accompany them, and that the Director of Agriculture and the Superintendent of Grove Place Farm be asked to address the agriculturists.

The Director of Agriculture stated that he would attend, and the Chairman said that he would suggest that the party visit Mr. Thursfield's property at Newport which he thought represented the finest demonstration of coffee culture that could be seen here.

The Secretary was given permission to attend and instructed to make the necessary arrangements in regard to the matter.

(d) *Letter from Mr. P. W. Sangster re Gilnock Show.*—Letter from Mr. Sangster was submitted, stating that the Gilnock Show Committee had requested him to ask the Board to waive the charges for the use of Show Equipment in view of the fact that the recent Show, though it had been a huge success from the agricultural standpoint, had not been a success financially.

After some discussion it was decided that the request should be granted but it would not be considered as creating a precedent for the future.

The matter of the collection of entrance fees at the gates of Show grounds was discussed and it was referred to the Show Committee for consideration as the whole question of Shows was at the moment under their survey.

(e) *Invitation from Rose Hall Branch to Annual Meeting in April.*—Letter from Rose Hall Branch, inviting the Secretary and members of the Board to attend their annual meeting in April.

The invitation was noted and the Secretary was directed to attend if he could so arrange.

(f) *Letter from Mr. P. O. Hutchinson re Dairy Industry.*—Letter from Mr. P. O. Hutchinson was submitted relative to the discussion which took place at the last meeting of the Board in connection with the

Dairy Industry, and giving certain statistics about the butter section of it.

The Secretary was directed to forward the letter to the Chairman of the Committee appointed by the Governor to deal with the matter.

Report from Bee Industry Committee.—

The following report from the Bee Industry Committee was submitted:—

12th March, 1935.

To the Board of Management:

Gentlemen,

Your Bee Industry Committee sat as a Committee of Enquiry on Tuesday, 12th March, 1935, from 2.30 p.m. to 8.80 p.m., in accordance with the terms of reference for enquiring into Mr. Coote's conduct with regard to the outbreak of Foul Brood Disease of Bees, and also in regard to his connection with commercial enterprises for the marketing of honey. There were present: P. W. Sangster (Chairman), Dr. S. Lockett, Messrs. T. J. Cawley, D. D. Phillips, W. Harper Watson and the Secretary, Glaister Baxter.

Your Committee took evidence on the matter and was supplied with information by Dr. Lockett in regard to various phases of the matter.

The witnesses who gave evidence were T. A. Gayle, A. Herring, H. S. Holt, S. A. Hibbert, C. H. Coote, Noel Crawford, Philip Reddie and J. M. Cohen.

The Chairman of the Committee put the following questions to the Committee:—

Did Mr. Coote believe that the disease he observed on the 15th September, 1934 was Foul Brood and did not report it?

The voting was as follows:—*Noes*: Messrs. Phillips and Watson; *Ayes*: Messrs. Cawley and Sangster.

Did he fail to report with due diligence the presence of a disease sufficiently serious to influence him to destroy the colony in which it was present?

Votes—unanimously. Yes.

Did he take proper precaution to prevent its spread?

Votes—Phillips. Yes. Sangster, Cawley and Watson: No.

Section 6 Sub-section 1 of Law 9 of 1918 reads as follows:—

"Every owner or person having the charge or management of an apiary who knows of or suspects the existence of any disease in such apiary shall with all practicable speed give notice in writing to the Director of Agriculture of the fact of the apiary being so infected or suspected and shall in such notice give all information in his power as to the extent and nature of such disease. The said notice shall be served personally on the Director of Agriculture or shall be addressed to him by registered post."

The Committee was asked, did he carry out the provisions of this section of the Law?

The Committee unanimously decided that Mr. Coote pleaded ignorance of the Law but knew of its existence.

With regard to Mr. Coote's connection with commercial enterprises, the evidence has not established that Mr. Coote is trading in honey, but it was admitted by his witnesses and himself that his father carries on a retail honey business at his home where the Society's apiary is situated. This is the second occasion on which his trading in honey has been raised. On the first occasion it was discontinued on the direction of the Society. If Mr. Coote continued to occupy the position of Bee Instructor all trading in honey on his premises should be discontinued.

The Committee was asked if they considered that Mr. Coote was guilty of grave negligence.

Votes:—Sangster, Cawley, Watson—Yes. Phillips—No.

Though not strictly within our terms of reference we recommend that the Board of Management impress on the Government the necessity of taking immediate action to amend the existing Law—Law 9 of 1918, so as to give the Director of Agriculture more effective powers for the control and supression of Bee Diseases.

We are, etc.,
(Sgd.) P. W. Sangster, *Chairman.*
T. J. Cawley.
W. Harper Watson.
D. D. Phillips.
Glaister Baxter.
Secretary of the Committee.

The Chairman moved that the report be adopted.

This was seconded by Mr. McKay and carried.

After some discussion, Mr. McKay said consequent on the adoption of the report by the Board he would move that the Officer in question be dismissed.

This was seconded by the Chairman.

After further discussion the votes were taken and resulted as follows: *Noes:* Mr. Phillips; *Ayes*: Messrs. McKay and Cawley. Messrs. Lewis and Watson and the Director of Agriculture did not vote.

The motion was declared carried, and the Secretary instructed to issue the necessary notice to Mr. Coote and to refer to the Bee Industry Committee for guidanse as to other necessary arrangements.

Mr. Phillips handed in a protest against the decision of the Board.

Instructors Committee.—

The Chairman moved the suspension of the standing orders to allow the Board to receive a report from the Instructors Committee which sat that morning.

This was seconded by Mr. McKay and carried.

The following report was then read:—

Kingston,
13th March, 1935.

To the Board of Management:

Gentlemen,

Your Instructors' Committee met this morning and submit the following recommendations:—

1. Letter from Instructor Byles was presented asking permission to visit holdings of cultivators for the purpose of making inspection and report for the use of the Banana Industry Aid Board. Your Committee recommends that Agricultural Instructors should not be permitted this type of service.

2. The Committee recommends that Instructor Wray be granted one month's vacation leave during April.

3. Letter from Mr. Croucher, Agricultural Chemist was read, stating that manurial experiments on bananas in St. Mary were being carried out and asking for the service of the Instructor in this connection. The Committee recommends that arrangements should be made to give the fullest co-operation in this matter.

4. The Committee recommends the affiliation of the Tower Hill Branch in St. Andrew.

5. Letter from Instructor Jones, asking permission to change his residence, owing to his present residence being unhealthy. The Committee recommends that the matter should be left in the hands of the Secretary who should confer with the Rev. Mr. Thompson and Mr. W. Harper Watson on the matter.

(Sgd.) GLAISTER BAXTER,
Secretary.

On the motion of the Chairman, seconded by Mr. McKay, the report was adopted.

Office.—

(a) *Secretary's Report on Travelling for February.*—The Secretary reported on travelling done by him during February.

This was noted.

Diseases of Plants and Animals: Insect Pests.—

(a) *Panama Disease of Bananas—Report for January.*—The report for the month of January on the incidence of Panama Disease of Bananas was submitted.

The Secretary stated that copies of the report had been sent to all the members of the Board.

Branches, Resolutions.—

(a) *Wilmington re Panama Disease and transportation of ground provisions.*—Resolution forwarded by the Hon. R. Ehrenstein on behalf of the Wilmington Branch requested the Parent Society to bring it to

the notice of the Department of Agriculture that Panama Disease had been introduced into the Pilot area through ground provisions and plants being taken to the district from infected areas and that it be urged that regulations be made or if already in existence be enforced whereby it be made punishable for people to remove plants and materials from an infected area into a place where the disease does not exist.

The Secretary was instructed to forward the resolution to the Director of Agriculture.

(b) *N.W. Hanover re Road.*—This resolution asked that the Director of Public Works be requested to continue the rolling of the new main road from Riley Pen through Askenish to Westmoreland so as to alleviate the inconvenience and suffering of hundreds of peasants using the road daily to their fields and markets.

The Secretary was directed to forward it to the Director of Public Works.

(c) *Bull Savanna re Tobacco Industry.*—This resolution asked that the Board place before the Government the immediate need of doing everything possible to improve the Tobacco Industry.

The Secretary was instructed to forward this to the Director of Agriculture.

(d) *Devon Potato Growers' Association re Storage of Potatoes.*—This resolution asked that the Department of Science and Agriculture be requested to obtain expert knowledge and carry out experiments with a view to ascertaining the best method of storing potatoes in Jamaica.

The Secretary was directed to forward same to the Director of Agriculture.

(e) *Green Island re Demonstration Farm.*—This resolution asked that a portion of land be obtained on the Cauldwell property with a view of locating one of the Demonstration Farms proposed by the Planning Committee in that section.

The Secretary was instructed to forward the resolution to the Director of Agriculture.

New Members.—

On the motion of the Chairman, seconded by Mr. McKay, the following were elected members of the Society:—

- John Kwaker, Kwanang Village, C/o P.O. Box 127, Kumasi, Ashanti.
- L. B. Marsh, Annotto Bay.
- George Saunders, C/o Agric. Dept., Campania Rananera de Costa Rica, Limon, Costa Rica, C. America.
- T. S. Brignac, Port-au-Prince, Haiti.
- M. Em. Carbonel, Cape Haitien, Haiti.
- Enos Mullings, Montego Bay.
- Wesley DeMercado, Liguanea.
- Robt. L. Pettigrew, Haytian American Development Corporation, Cape Haitien.

Other Business.—

(a) *Letter from C.S.O. re Agricultural Research Workers,* 1934.—Letter No. 3447/32 of date 12th February, 1935, covering list of Agricultural Research Workers in the British Empire, 1934, was submitted and tabled.

(b) *Letter from C.S.O. re Provident Scheme.*—The following letter from the C.S.O. was considered:—

No. 2292/32. 7th March, 1935.

"I have the honour to refer to your letter No. 11, dated the 8th June, 1934, in regard to the proposed Provident Scheme for the benefit of the male employees of the Jamaica Agricultural Society. I must express my regret at the delay in replying, but the matter is, of course, far from simple and requires careful consideration.

2. I would observe that a Provident Fund is usually a scheme in which the eventual beneficiary and his employer contribute in proportional rates (not necessarily equal but both bearing Interest) towards a lump sum available to the employee on retirement (1) having arrived at the age limit or (2) on the ground of ill-health or (3) for his next-of-kin in the event of death at any time.

3. The proposals of your Society, however, seem to be more in the nature of a contributory Pension Scheme than a Provident Fund and its benefits do not appear to permit such generous provision for dependants, or such varied opportunities, as is possible under a Provident Fund. Apart from this point it is desirable that officers adopting any scheme—Provident or Pension—should obtain the fullest benefits therefrom; but the introduction of a third party—an Insurance Company—can only operate at the expense of the contributor and the employer. A Provident Fund can be run and administered by a Society at no sacrifice of benefit and at relatively little expense.

5. Assuming that your Society can be regarded as a permanent institution giving permanent employment at fixed scales of pay to its servants and assuming that the Society admits its liability to its officers in regard to retiring allowances, the Government is inclined to the view that a Provident Fund generally adopted in other Colonies is more suitable for the purpose required.

6. The Provident Fund system has many advantages from the point of view of both employer and the employee, on which it is not necessary to enlarge, but the main benefit is the fact that in ordinary circumstances a contributor on retirement has at his disposal a sum of money, which he can utilise in any way he wishes—education of his children, purchase of an annuity or property or business, etc. The corresponding proposals of your Society are not so varied in their scope or opportunity.

7. Whatever scheme is decided upon it should be based on the contributions of the employer (the Society) and the employee, and the question of whether Government assists by increasing the Government grant or not should not interfere with the principle that the Society should be responsible for its employees and their retiring benefits, if any.

I shall be glad to be favoured with your observations on the foregoing.

(Sgd.) A. S. Jelf,
Colonial Secretary.

After some discussion, the Secretary was instructed to write to the Secretary of the Civil Service Association for information regarding a matter of a similar nature which that Association was dealing with, and to request the Hon. Colonial Secretary to obtain for the information of the Board details of Provident Schemes adopted in other Colonies referred to in his letter.

(c) *Application from Jamaica Horticultural Society re hireage of Show Equipment.*—Letter from the Secretary of the Jamaica Horticultural Society was submitted, asking that the Society's marquees be hired to them for their Flower Show on the 10th April, 1935.

This was agreed to on the usual terms.

(d) *Application from Browns' Hall Branch for grant for Juvenile Society.*—Letter from Brown's Hall Branch, asking the Board for a grant of One Pound for procuring seeds, etc., for the Juvenile Society was submitted and authorised.

(e) *Letter from Lucky Hill Branch re Authorised Persons.*—Letter from the Lucky Hill Branch was submitted, stating that an Authorised Person attached to the Branch had sustained injury during the performance of his duty and asked that the matter be referred to the Inspector General of Police so that the Authorised Person may receive some compensation.

The Secretary was instructed to refer the matter to the Inspector General of Police.

(f) *Resolution from Watermount Branch re road.*—This resolution asked that improvements be effected on Road No. 19.

The Secretary was directed to forward same to the St. Catherine Parochial Board.

(g) *Letter from President, Westmoreland Branches Associated re Deputation to His Excellency the Governor.*—Letter was submitted, asking that a request be made to the Colonial Secretary to arrange a date for a deputation of the Westmoreland Branches Associated to wait on His Excellency the Governor to place before His Excellency the question of the residence of the District Medical Officer for the new Medical District in that section. The letter also requested that the First Vice-President be asked to introduce the deputation to His Excellency.

After discussion the Secretary was instructed to communicate with the Hon. Colonial Secretary.

The meeting then adjourned to Wednesday, 3rd April at 11.30 a.m.

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EDITORIAL COMMENTS.

We cannot but feel gratified at some notable utterances with respect to the need for agricultural planning and organization as a means of increasing the agricultural prosperity of the country which have emanated from the most prominent people in the country.

His Excellency's opening address to the Legislative Council clearly pointed to the fact of his realization of this most important need of the community. The Hon. Mr. Ehrenstein, a member of our Board of Management, made a most notable contribution on the same subject in his budget speech and nearly every other member sounded a like note with varying intensity. We cannot but recall the speech made by His Excellency (our President) on his first visit to the Agricultural Society when he presided for a short while at one of the meetings of our Board of Management where he said, "I want to feel that we do not only talk about things I want to get things done—; and so we are having the highest hope that at last some tangible step will be taken to commence the march of progress which agriculture so sadly needs in Jamaica.

We cannot write without expressing our regrets that due to our present financial situation the Society is precluded from any extension of its services, and though it is with some difficulty we fight a feeling of discouragement in regard to our own handicaps we are fully determined to endeavour to heighten the efficiency of our services to the fullest extent within our limited means. We draw attention to the fact, as it possibly might not be generally thought of, that any increased activities on our part immediately creates additional expenditure to the Society. For instance for every additional Branch member that is recruited, our Journal costs increase by two shillings net per annum. So that one thousand additional Branch members will immediately force the Society to find an additional £100 per annum. Yet, we all realise that we have not got enough Branch members and the more we have the better the chanches of agricultural progression will be. The activities in the top-working of citrus also increases our expenditure for budwood and budding material. In encouraging the growth of Citrus, Irish potatoes and vegetables, we run up against pests and disease problems which necessitate the teaching of the people to control them by sprays. Material and equipment is required for this and so our expenses rise. Yet, these services are absolutely necessary because the trend to place our agricultural eggs in more than one basket is admittedly sound. Our attempt to expand the growing of Bombay mangoes necessitates the establishment of Bombay Mango plots to ensure the provision of budwood in locations close to the areas in which this industry is being developed. The difficulty of Bombay mango budwood bing preserved in good condition for any length of time is well known and so these propagation plots are absolutely necessary and justified. This also means more expenditure. And so it goes along, for every additional activity undertaken it means more money to carry them through, yet without doubt these additional agricultural activities are very necessary safeguards for agricultural prosperity and we can no longer look with equanimity and contendtedness, while such prosperity as we experience remain entirely dependent on two or three major crops.

We have often thought as to whether it would be wise to ask our members to contribute a greater amount to the support of the Society;

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KINGSTON, JAMAICA, B.W.I.

by way of subscriptions, Branch affiliations and Journal fees, but we are realizing that not only has agriculture to be taught, but the very spirit of progressive agriculture has yet to be inculcated in an overwhelming majority of the agricultural population, and so we reluctantly have had to decide in our minds that any increase in the subscriptions, etc., towards the support of the Society might create an entirely opposite effect to that which we aim at, the largest membership possible on which our influence may bear fruit.

We are afraid that however difficult it may be found to finance the routine services to the country that we must be prepared to invest more in propaganda work to create the true progressive agricultural spirit, in agricultural teaching to improve our agricultural practices, in agricultural experiments and researches, to creat new industries and improve the old ones, in marketing efforts to create outlets for the products we grow, and these things cannot be achieved for nothing. If they are desirable and without question they are, we must be prepared to pay for them. This attitude of mind is the proper one for the agriculturists of the country and for those who direct their destinies to adopt.

REVIEW OF CURRENT LITERATURE.

We have read with interest the "Year Book of Agricultural Co-operation (1935)" edited by the Horace Plunkett Foundation, and published by P. S. King and Son, Ltd., Westminster.

This volume contains a resume of the activities of the Co-operative movement during 1934. Its scope is not restricted to any country or group of countries, but is world-wide. Chapters on the various countries are contributed by authors who are experts on the subject of co-operation in the country with which they deal. The sections on England and the United States afford interesting information on the question of State control and its reaction on the co-operative movement in democratic countries.

In France, co-operation has made great progress during the past few years. An important feature is the excellent service being rendered to the agricultural community by the Mutual Agricultural Credit Societies.

We in Jamaica have been apt to consider the Co-operative movement as being essentially connected with the marketing of agricultural produce. The advantages that can be obtained by applying the co-operative principle to other fields are very forcibly presented in a most instructive article on "Co-operative Insurance," by N. Baron.

The book as a whole is very interesting and we recommend it to any one who wishes to keep in touch with the trend of modern economic thought and practice, especially as related to agricultural problems.

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PANAMA DISEASE OF BANANAS—ONE-ROOT SYSTEM.

Mr. McKay speaking at the regular monthly meeting of the Board of Management on the 3rd April, brought to the attention of the Board what he regarded as a very important matter—the pronouncement of the Director of Agriculture in the Legislative Council the previous week that he was about to advise that the Government was prepared to adopt the one-root system in the treatment of bananas affected with Panama Disease.

He said he wanted to congratulate the Director of Agriculture on the steps he had taken. In some other place he had seen that what he regarded as a very strong attack had been made upon the Director of Agriculture. The figures that he had before him showed that for the month of February, the diseased plants treated since 1935 were 93,202 and if they multiplied that by 9 and took 60 per cent. of the bananas grown in Jamaica as payables, it would give them 838,818, and working that out in money it would show that they lost since the period under review a sum of £67,105. He thought that what the Director had done was quite right and he felt that he had 90 per cent. of the planters in Jamaica on his side. He would go further and say that science has not proven that the destruction of eight roots round the diseased tree would prevent or retard the spread of the disease, therefore it was much better for them to destroy one root and reap the eight than to destroy nine and not reap anything from them. The agricultural interests of Jamaica were in agreement with the decision of the Director of Agriculture to extend the one-root system. He believed that the Director of Agriculture would see that there was increased vigilance in the treatment to the one-root that is diseased. Often times the big man gets away with it. The big man and the little man, every one should be made to treat every single root of diseased bananas. There is no longer any necessity for hiding it. The result of the nine-root system has been that many a man hides it. Now if he hides it he is sinning against the agricultural interest of the Island. He hoped the Director would tighten up and see that the men reported cases promptly and then each case could be treated under the supervision of the Inspector of Plant Diseases. If a planter discovered a case of disease and was allowed to treat it himself the Inspector should go there and see that it is properly treated. The one-root system if properly adhered to would help to increase the export value of the bananas of Jamaica. He thought that they as the Board of Management should stand by the Director, representing as they did the agricultural interests of Jamaica, and say that they agreed with him in spite of whatever may be said. He felt that the Director of Agriculture had done a very good act He had not given way to popular clamour but to common sense and right statesmanship.

The Director of Agriculture speaking on the same subject said that sooner or later there could be no question that it would be necessary to make a change in connection with the treatment of Panama Disease. He had been criticised for what he said in another place last week, but he stood by every word of it. He would add to the published remarks, the one that there was no intention whatever of relaxing efforts to repress the disease as soon as it occurred. They knew they could not keep it in absolute control, but they did know that all the work that the Department had been putting into the matter for the last 23 years, had been very considerably reduced in effectiveness, because of the

unpopularity of the methods that were adopted. The position was that on the average for every case of Panama Disease six roots which might have borne fruit, were destroyed. He did not say they would bear fruit, he said they might, and if only half survived, for every single case they should be justified in their action. He would ask them to look at it in another way. As soon as the Department in its very serious duty of endeavouring to keep in check this Panama Disease had the full sympathy and co-operation of the planting community its work was going to be more effective—the treatment would be carried out more easily and he saw no difficulty in adopting means whereby the actual location of the diseased roots could be clearly marked and the roots in close proximity to it also clearly marked so that the Inspector could see exactly where the danger spots were and see if there was any spread of the disease from one plant to another. The owner himself should be assisted and encouraged to keep a very close watch on the small quarantined areas, to see and recognise the earliest manifestations of the Panama Disease and destroy such affected plants immediately. Under existing circumstances he regretted to say that had not been done simply because a man with say 20 acres of land knew that as soon as he reported the disease all plants within 16 feet of the affected root were going to be ruthlessly destroyed, no matter what they were, bananas, yams, or anything else and it was that that hurt him. It hurt him first because he did not understand what had been done and then because he was losing the fruits of his labour. If persons who perhaps might consider that the continuance of the nine-root system was justified would think of the people amongst whom the Inspectors of Plant Diseases had to work he thought they would realise that the practical difficulty of expense—and expense was an important matter—made it necessary to review the position. He would be the last one to do anything which he felt would in any way jeopardise the banana industry in this island. He would not be a party to it. He had taken eighteen months of real hard thinking and careful study to make the decision. It was not arrived at in a moment. It was not taken without much careful consideration or because anyone suggested that the time had come to make a change, but on his own personal observations, his own study of the position as it was now and as it had been in past years, and his own absolute conviction that if they did not make a change very soon—not necessarily in every district of the island—but in a considerable proportion of the banana growing districts, the efforts that they had made for the past 22 or 23 years were being rapidly frustrated because of the lack of co-operation and absence of understanding on the part of the people amongst whom they had to work. The Agricultural Society, particularly the Board of Management afforded the Director of Agriculture from time to time opportunity of dealing with agricultural policies and of having them brought to the attention of the people through the members of the Board of Management who were present at the time when various communications were made. He would welcome very much the co-operation of all members of the Board who resided in banana districts in bringing about a proper understanding of the position. There was going to be no relaxation on the part of the Inspectors of Plant Diseases, rather was there going to be a tightening up which would be in the direction of immediate treatment of every recognised case of disease. That policy, if he was permitted to pursue it, would be ruthlessly pursued. He believed in adopting this method they would be able to save something to the people whose fields were ravished by Panama Disease.

Another important aspect in which he would invoke the co-operation and understanding of the Agricultural Society was in connection with the regulations governing the removal of banana and plantain suckers, but particularly banana suckers intended for planting. The Advisory Committee on the banana and citrus industries had recommended to the Government that steps should be taken to control the movement of banana suckers from property to property and that no person should be permitted to remove plants from any one place to another outside the confines of his own property without permission from some duly qualified person. The Committee believed that the indiscriminate removal of banana suckers had been the most potent factor in spreading the disease. They knew that they were safe in saying at any rate that 95 per cent. of the cases of Panama Disease were infected from the ground. Soil could carry very active infection, and banana suckers carried from one place for planting in another, were in themselves he believed—and the Committee had endorsed what was his belief—the most potent factor in spreading the disease. Although there might he an apparent relaxation in the method of treatment there would be in actual effect a tightening up. It would be determined that all first signs of the disease be immediately reported for control steps to be taken. A diseared plant would be entirely destroyed and the spot marked in such a way as to be kept under observation and the plants in close proximity would also be kept under careful observation. They proposed to introduce with the approval of Government a regulation which would control the removal of banana suckers from one place to another for planting. He took it upon himself to express his own views as Director of Agriculture, but there was a special process for bringing about changes and particularly such an important change as the one he had said he would be prepared to advise on. It would be very foolish for him to act without the full support of the Advisory Committee of which he was Chairman and his statement in the Legislative Council was based on a decision arrived at by the Committee. The change could not however be brought about immediately. The Advisory Committee would have to consider very carefully the proposals that would be put before them for the proper control of the disease despite any change which might take place in respect to the Panama Disease. He thanked them for the patience with which they had listened to him and he trusted that they understood more clearly the position than they might have done before. He also thanked the members of the Board for their kind remarks and assured them that with their continued interest and co-operation a lot could be done for the development of agriculture in Jamaica.

ANNOUNCEMENT.

Irrigated Banana Land on Liguanea Plains.—

Investors interested in irrigated banana properties on the Liguanea Plains of St. Andrew, should get in touch with the Secretary, the Jamaica Agricultural Society, who can put bona fide enquirers in contact with owners of banana lands with water available and some cultivation already established.

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DAIRY CATTLE BREEDING IN JAMAICA.

By T. P. Lecky.

(A Fourth-year Thesis for Course in Animal Husbandry at the Ontario Agricultural College, 1934.)

(*Conclusion.*)

Possibility of Producing a Tropical Breed:—

From the discussion of the different breeds it will be seen that in their present state no breed of the Bos taurus is pre-eminently suited for tropical conditions as purebreds. From the way the breeding is being carried on at present, we cannot hope to compete with imported dairy products. Cross-bred animals though reasonably satisfactory in individuals cannot satisfy the industry. It would require the keeping of two purebred breeds and this would be expensive.

There are two avenues open, as follows:

1. The selection within an established breed;
2. The production of a new breed by crossing the Zebu with a breed of the Bos taurus.

The Selection within an Established Breed:

If one chooses the most likely dairy breed that suffers somewhat less than the other breeds he may be able after some years to evolve a breed suited to climatic conditions. The Jersey, the most likely breed, with proper housing to shade them from the sun during the heat of day, with improved feeding and management, may be able to make a paying job, but for the ordinary farmer, this is not possible. To keep up the breed it would be necessary to resort often to importation and here one would only tend to lose the constitution that he is after; besides, it would be very expensive. Again the difficulty in eradicating ticks makes this method seem doubtful of succeeding. Even without this it must be a very slow process as it is based on mutation, which is governed purely by chance.

The possibility of producing a purebred Montgomery breed that is high producing seems more favourable, and this is the work being carried on at the Research Institute, Pusa, India. The cattle have the tropical constitution but lack the true dairy-type which must be necessary for production, as all high producing breeds conform to it. It is necessary that a cow have the capacity for feed and the ability to turn it into milk. This then would call for a radical change in the Zebu conformation. To change a breed that had been selected for centuries as bests of burden, will require a very long time. Beside the morphological changes necessary it would be necessary to overcome the slow breeding that is characteristic of Zebus. To obtain sufficient Montgomery cows for this method would be expensive and the Island would stand a greater chance of introducing Foot and Mouth disease from India. With all these limitation if one was certain of their ability to become high producers the Government might be justified to try them.

By Hybridization.—

The most probable and quickest method seems to be by crossing the Jerseys with the Zebu and developing a breed from it. Dr. Hammond strongly advocates sticking to one breed, and therefore the writer has chosen the Jersey-Zebu as the best cross, from the conclusions drawn in comparison of the breeds previously discussed. Mr. J. Edwards in his paper "Breeding for Milk Production in the T opics" wrote: "Such comprehensive characters (constitution and milk yield)

are undoubtedly the expressions of multiple factor inheritances, and it does seem possible that a scientific blending of the two strains might achieve the desired aim of a new breed combining some of the characters of both parent breeds."

The method of producing a breed by crossing the Montgomery and the Ayrshires in India has failed, and this is due to the method being wrong. They crossed these two breeds and then bred the F1 inter se. A method like this required about 10,000 animals to select from, for it must be remembered that they were not crossing breeds but species; therefore the factors differing must be enormous. The best attempt made was by Mr. Cousins in trying to produce a Zebu Jersey breed in the early history of the Hope Farm. He used two one-eight-Zebu bulls that were sired by pure-bred Jersey bulls and a son of one of these bulls out of a pure-bred Jersey cow. It is worthy of note that Cognac 1st was produced by this breeding. She gave over 7,000 lbs. in her first lactation, being the highest yield ever produced in Jamaica up to that time. Her breeding was as follows:

Cognac 1st
- —Tipperary
  - —Draconis of St. Lawrence Ja. 3 (Purebred Jersey)
  - —Distance (¼ bred Nellore)
- —Cognac
  - —Experiment
    - —Trojan (Pedigree Jersey)
    - —Distance
  - —Brandy (graded Jersey)

Her milking weight was 1,226 lbs.

The experiment was discontinued mainly due to the lack of funds at the time, as the farm could not absorb it, and the poor quality of the dams of these bulls. Experiment's and Tipperary's dam was a mongrel while Diadem's dam was a very poor producer and her gets and their offspring have been the lowest yielders in the Jersey herd.

The plan that is most likely to succeed will be similar to this. The bulls to be used should contain only two breeds in their make-up. Cross the Half-bred bulls on the purebred Jerseys and high grades and follow this with one or two back crosses to the Jersey. The aim then is to produce a Jersey with no more than one-eight Zebu. The reason for using this is to have the Jersery type and production with the Zebu constitution. If we use the Montgomery and only introduce milk, we would still require to change its conformation, and add fertility. It is better to take as our foundation the breed that needs less, as it is difficult to work with more than one set of characters. It is necessary to study the hybrids to be able to recognise the phenotypes that are responsibible for constitution. We know that the short hair and dark hide is necessary, but constitution does not lie in these and other Morphological characters such as depth of girth and width of forehead alone, but is coupled with physiological factors which can only be determined by progeny testing. These factors are multiple inheritances for when we cross a Zebu with another breed we do not get a complete dominance in short hairs over long but somewhat interme-

diate. Most Jerseys are dark skinned. This should be carried on with rigid selection and progeny testing; since an individual may lose the necessary factors and revert back to one or the other of the breeds. Fortunately most of the initial work has been done (at Hope) and by selection and carrying of the work a little longer when they will have enough material to work on. From the data presented on the different crosses in Jersey-Zebu it will be seen that there is a fair amount of material. The next step is to decide on the cattle to breed from and then stop all outside crossing. All the Jerseys could be used in this work as only a small percent of Zebu is required. The plan of developing the breed could be after the method used in the Pusa herd in India, for the improvement of the Montgomery breed, where they have divided the herd into five; each headed by its own bull. This enabled them to carry on line-breeding and lessen too intense inbreeding and also to save them from going outside for bulls. A rigid adherence to type, production, and constitution should be maintained. The writer believes that this part of the work should be carried on by the Government as they have the animals, and the farm superintendent is the best judge of livestock in Jamaica. Once the breed is established the dairymen should take their share of the job in improving it. In order to carry out progeny testing the Government could sell the bulls to be tested after mating each one with about eight or ten of the best cows and then sell them to dairy farmers at a reduced price subject to being bought back if found necessary. By the time their daughters are tested the farmer would necessarily require a new bull, and the Government could exchange another such bull as the first. This would have added advantage of improving the dairy herds at the same time while protecting the right bulls from going to the butcher too early. This was

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the method employed by one of the greatest improvers of the Shorthorn breed. The farmers with these bulls should be required to test their herd especially the daughters of these bulls. The bull index, as it is being used at present to determine the value of a sire's breeding ability, could be adopted.

In connection with this the writer wishes to bring out two important factors that are absolutely necessary for success in animal breeding and which are lacking among our breeders in Jamaica,—the testing and keeping of records, and shows. It is only when type and production with the ability to live go hand in hand can a breed expect to make progress. Individuals will excel on either one of these but both are required for the breed. Unfortunately, too many dairymen do not seem to realize the value of testing his herd, whereby he can discard unprofitable animals and thus avoid that over-production of these parasites.

Records are very important as it is the only true guide to proper breeding. Often one will hear, and see cows advertised, as a ten-quart or twelve-quart cow rather than her lactation. This is no guide to the ability of the cow whether she can stand up to milking or not, and whether an animal pays will depend on her year's work. A bull that improves his daughters over their dams should be kept as long as it is economical to do so. Some method of testing such as the R. O. P. Record of Performance used in Canada is required, and under Government control to give it value and authenticity, or else unscrupulous dairymen may parade off poor bulls and cows as good ones. If a herd book is formed it will either have to be kept by the Government or by an association under Government control. The Breeders' Association with the interest of the breed can do more as they will be able to advertise the breed, arrange sales and do extension work.

If one should visit the large shows in Canada, U.S.A. or England, one would come to the conclusion that the method of showing livestock in Jamaica is inadequate, because it has no standard type and therefore is not accomplishing the work that shows are created for. The writer noticed while attending a show in Jamaica the lack of interest displayed in the cattle exhibited and no attempt made to show them at their best or to attract attention. There seems not to be anything to create a deep desire to compete mainly in the show-ring and therefore some form of honours should be evolved thereby giving the breeder the joy of competing. There should be some value placed on the animals winning the first prizes and the breeders should have a scale of points whereby the relative value of each point in relation to others may be known; although one does not judge cattle in the show-ring on this method. The showing of the best type of animals will naturally influence the breeders for good. Care must be exercised in selecting the right type as it will influence the breeders. These criticisms, made on records and shows as carried on in Jamaica by the ordinary "pen-keepers" should be taken in the best of grace, as it is due to the keen interest in the dairy industry that they are made.

CONCLUSION.

1. There is a possibility of dairying increasing in Jamaica due to the large demand for condensed milk, and to find an industry that will take care of a part of the gap left by the going out of bananas.

2. The cost of milk is a limiting factor to the increase of the industry which resulted from the high cost of concentrates and the low yield of

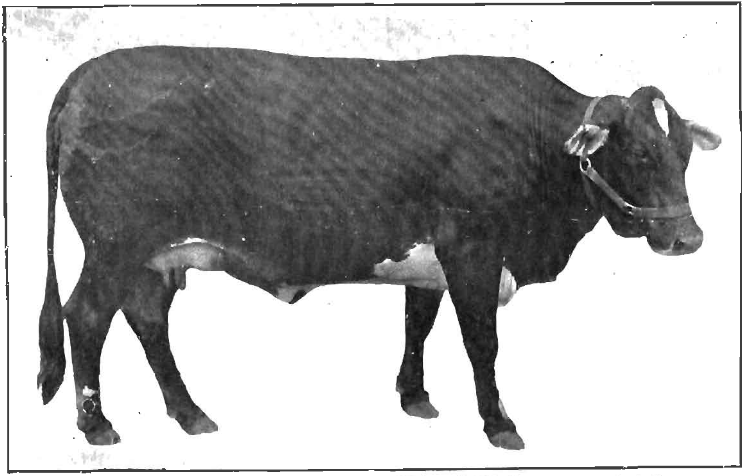

Fig. 5. "Vickie C." Zebu-Jersey (17-32 Zebu). Weight 1,160 lbs. average lactation 252 lbs. butterfat. Sire, "Pusa." (See fig. 1.) Dam, Vickie A. (See fig. 4.)

3. Co-operative buying of imported feeds can lower the cost, which will help to reduce the price of milk.

4. Our pastures require some research work and to be treated as a crop, with more attention paid to its upkeep and with the introduction of a legume, it should reduce the amount of imported feed necessary. Alfalfa gives the best possibility as it will supply protein to the feed, resist drought and add nitrogen to the soil.

5. More attention should be paid to the storage of feed to carry the herd over the drought to avoid the amount of milk placed on the market being reduced to the extent as at present, whereby it limits its demand in the time when milk is plentiful. This can be overcome by the use of silage and hay. The machines, necessary for this work, may be reduced in cost by the co-operative ownership of them.

6. The Jerseys proved to be the most likely breed to form the foundation of a new breed, as fewer factors are required to make it adaptable, and therefore lessens the time and simplifies the project.

7. Resistance to climatic conditions can be overcome by Zebu crossing.

8. Cross breeding was not very successful as the high percentage of discards had to be met with, especially in the half-breeds. It did not lead us to permanent improvement as we had to be reverting to the Zebu for constitution after a few back crosses.

9. The native cross with the Jersey or the other breeds gave less milk than the Zebu cross.

10. Red Polls have not proved themselves as good as the three dairy breeds tested for dairying and the half breds on the whole have been failures.

11. The best results obtained in Jamaica were when a purebred

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all milk used in the household should come from healthy cows, fed in the country, on rich pastures, that it should be perfectly pure and safe, with all vitamins and nutritious elements left intact.

This can only be attained where best organisation and conscientiousness co-operate. In this respect, the name of **Nestle's** means full guarantee. Indeed the Nestle Company is always on the level with the most up-to-date scientific methods for the manufacture of milk products. ***Therefore . . . . .***

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bull was mated with cows of about a quarter to an eighth Zebu blood; e.g. *Norbrook 4th*.

12. The failure to establish a breed was due mainly to the inadequate supply of funds at the time when this was undertaken and the right animals to breed from. The Indian experiment failed because they had attempted to produce a breed from the FI generation by crossing inter see and they could not rear enough of the F2 that such an undertaking requires.

13. With one breed of dairy cattle in Jamaica we have the greatest possibility for improvement, which could not be possible with more than one, because of the small dairy cattle population.

14. The necessity for testing is obvious if we are going to develop the industry to its fullest extent; and it must be balanced by type which can only be satisfactorily done by shows. Record should be kept of the the entire herd and herd improvement scheme developed under government supervision, as it is carried on in large dairy centres of the world.

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The Medium Bold No. 2 Quality Ginger.

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THE JAMAICA AGRICULTURAL SOCIETY.
Messrs. ADOLPH LEVY & BRO., Kingston.
Mr. HAROLD A. WAITE, Christiana.

PIMENTO.

A Pimento rust disease has beecome more and more prevalent in Jamaica and may be said to be present in all the larger pimento districts to a more or less serious extent. We consider it wise to give some publicity to the matter and we are publishing below a letter from Mr. J. B. Thursfield of Newport to Mr. H. E. Lewis one of the members of the Board of Management from which letter a discussion arose at the meeting of the Board held on the 13th March.

The Director of Agriculture who was present spoke on the matter and his speech which admirably sums up the situation is reproduced also.

Since then the Government Microbiologist, Mr. F. E. V. Smith has again visited Manchester and he has seen the effects of the disease and also the trees mentioned in Mr. Thursfield's letter. The conclusion arrived at by his visit there has not altered the situation as outlined by the Director of Agriculture in his speech.

Editor.

4th March, 1935.

Dear Mr. Lewis,

I had noticed several pimento trees here which were apparently sick and likely to die; I attributed it to the results of the hurricanes we had had so many of loosening the roots so that the trees ultimately died, as I saw several trees, long after the hurricanes, suddenly tilt out of the ground.

But there is obviously some other cause at work; the leaves turn a kind of mud-colour and the tree dies. I have seen it to-day round Mandeville, Mr. Wynne has found the same at Brokenhurst. Mr. Stanley Anderson says disease, he hears, is killing pimento trees up at Malvern and Mr. W. G. H. Wilson told me to-day in Mandeville that he thought the whole parish would lose its trees if some cure were not discovered. The people around here say their trees are dying and I am sending you some sample leaves from this property, though I do not doubt that you have plenty of your own. There is absolutely no spring on the trees and any young leaves are at once attacked by the rust and drop off; the disease seems to hit young trees worst of all.

As you are a member of the Board of Management, I think you should take this matter up most strongly at the Society and with the Department; you can send on this letter and the leaves to either you like. Mr. Wilson had a letter from the Department saying that some application of lime-wash would, with two applications eure the trouble, but this seems rather impracticable on a large seale and even if done I do not know if there would not be prompt re-infection. I suggest you write to Mr. Barnes and ask him to have the whole situation examined; it is going to be a most serious matter for Manchester if pimento disappears, poor as present prices may be. You might also ask Mr. Baxter to have the subject put on the Agenda for the next Board meeting and bring up the matter there. But it would be best to press Mr. Barnes to recognise the urgency of having the affair examined without any delay.

(Sgd.) J. B. Thursfield.

Speaking on the subject the Director of Agriculture said:—I do not think it is necessary to press the Director to look into a thing recognised as of such great importance. The disease manifested itself last year and was immediately brought under observation. It was felt that the only agency that would clear it would be a return to normal weather conditions, but now it appears that the disease could not be cleared up after one normal season. It is clearly indicated in Mr. Thursfield's letter that any means for artificial control is impracticable because of the cost. No person could be expected to treat the trees successfully and receive a profitable return from the yield. It is a most unfortunate occurrence, one that we are not responsible for in any way, for it is a natural calamity just as others have struck us. The Microbiologist who visited the affected area recently took with him a professor, a very eminent American who was here, Professor J. H. Faull of Harvard University—whose specialty is diseases of this kind, and he confirmed the Microbiologist's impression that this was a new disease, and that

it was so far unidentified. We are hoping soon to receive such information as will increase our knowledge in dealing with the disease, but how far such information will help I do not know. Professor Faull had in mind the possibility of sending out a Research Fellow who could live here for a year or two and devote his whole time studying the whole problem. This again would be of some scientific value, but whether it will have much effect as viewed by the pimento grower is another thing. It seems to me that we have to accept the position and hope for the best. If control measures are so costly as to be uneconomical the only thing we can do is to wait with such patience as we can muster until the position is automatically cleared up by climatic conditions. It had not been brought to my notice that trees were actually dying as I have heard to-day, nor have I seen any notice to that effect. The first information I have had of this was from the letter which has just been read. All I can say is that the matter is under observation and if any economical method of controlling or checking the disease is discovered it will be made known as rapidly as possible by advising the methods and showing how it should be done, but at present the prospects of anything like that are extremely remote. I am very sorry that the pimento industry which has already fallen on evil times should be so affected by a disease that is causing very heavy damage to the trees, but in view of what I have said I feel that you will realise that we can do little more than hope that research will will help to clear up the thing quickly, or that there will be some means of applying a cheap corrective method which will not be beyond the means of the owners of the trees."

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JAMAICA HONEY, GENERAL MARKET REVIEW AND PROSPECTS FOR THE NEW CROP.

(From Messrs. D. J. Scott & Co., 38 *Lombard St., London E.C.* 3, 15.3.35.)

Our friends in Jamaica will recollect that we issued a rather comprehensive report on the Honey market in September last in which we gave some hope of an active market and the prospects of more favourable prices during the approaching Autumn, which were based upon certain facts. Foremost among these were the customary demand expected at that time of the year and the fact that no Russian Honey would have been dumped on this market at very low prices as had taken place during the previous year (1933). Our information regarding the dumping of large quantities of Russian Honey was correct, as will be seen from the statistical position outlined below, shewing that the imports of Russian Honey last year (1934) only amounted to 961 cwts. In the previous year (1933) the imports from Russia amounted to 10,000 cwts. On the other hand there was a much larger crop of Canadian Honey than was originally anticipated. But unfortunately there was practically no general Autumn demand and except for some selling by weak holders of consignments of Jamaica Honey the market became gradually neglected. Although this may be attributed in some measure to causes that could not be controlled, our opinion is that it was mainly due to very bad marketing influenced by certain dealers on the London market who have been endeavouring to dominate the market for Jamaica Honey during recent years. The procedure is for these people to underquote the fixed market prices on samples secured from the London Brokers of goods exposed for sale. With fairly large arrivals and with the slow movement that may have been temporary, the scheme succeeded and prices went from bad to worse. The majority of the Agents for Jamaica Shippers, unaware of what was transpiring behind the scenes, became alarmed and consignments of excellent quality were in many instances sold at very low prices dictated by these buyers. There are other bad features of the Jamaica Honey trade which receive encouragement in certain quarters to which attention may be usefully directed at some future time.

Suggestions for Improvement in Marketing.

As we have previously pointed out the present state of affairs can only be remedied by the dealers and the Bee-keepers in Jamaica adopting some form of co-operation similar to that of New Zealand and Canada. Even a partial form of co-operation under what is known as the group system might have a great effect. For if say, one half of the total production of Jamaica Honey, particularly the better sorts (Water White and Pale Amber), against which the only competing varieties of Empire production are New Zealand and the Canadian Clover Honey for which full prices are always paid, were placed in strong and capable hands and the marketing conducted on similar lines by repacking in London and distributing to the trade, the results would be greatly improved.

It will, we think, be interesting for us to review the whole situation during the past year in respect of all Honey imported into this country. For this purpose we give below a schedule of all imports for the year 1934 which may be profitably studied by all Bee-keepers, Dealers, and Shippers in Jamaica. The figures were supplied to us through the courtesy of the Statistical Department of His Majesty's Customs and

Excise in London and may therefore be regarded as authentic and reliable. For the purpose of assisting our friends we have worked out the average F.O.B. cost prices per cwt. which we have placed against the total values of imports for each country of importance, and we have lumped together all the small importations ranging from one cwt. to one ton under the heading "Other Foreign Countries," which are mainly European.

Imports of Honey into Great Britain for the year 1934.

	Quantities expressed in cwts.	Total Value.	Average price per cwt. F.O.B.
Canada ..	15,489	£35,532	45/10
Jamaica and Dependencies	13,477	£19,508	28/11
U. S. America	11,990	£22,173	37/-
New Zealand	5,710	£19,459	68/2
Chile ..	4,120	£5,365	26/-
St. Domingo	3,218	£3,735	23/3
Australia	2,609	3,984	30/6
Cuba ..	2,488	3,278	26/4
Mexico ..	1,791	2,342	26/2
Soviet Union (Russia)	961	1,483	30/10
Trinidad, and other British West Indian Islands	677	1,108	32/9
Other Foreign Countries	2,828	5,310	37/7
Total	65,358 cwts.	£123,277	

Summary of Imports of Foreign and West India Honey. In competition with Jamaica Honey.

Chile ..	4,120	£5,365
St. Domingo	3,218	£3,735
Cuba ..	2,488	£3,278
Mexico ..	1,791	£2,342
	11,617 cwts.	£14,720

In analysing these importations, we should like to draw attention to certain facts disclosed by the figures.

In the first place it will be observed that Jamaica holds second place in the total quantities of the imports from all countries; but we would direct special attention to the fact that the average price of Jamaica Honey which in comparison with Canadian and New Zealand is extremely low. The Honey from both these latter countries is marketed in the manner we have described above by firms in London who are directly appointed to take charge of the re-packing and distribution and who have a financial interest in the business and share in the profits over and above a fixed minimum price paid to the dealers and producers.

Another point to which attention might also be directed is that the total quantity of Honey from the foreign West Indies and other parts nearly approximates the quantity imported from Jamaica. These descriptions are sold at prices about the equivalent of prices paid for the ordinary Dark and Light Amber grades of Jamaica Honey when the foreign duty of 7/- per cwt is taken into consideration. As there are

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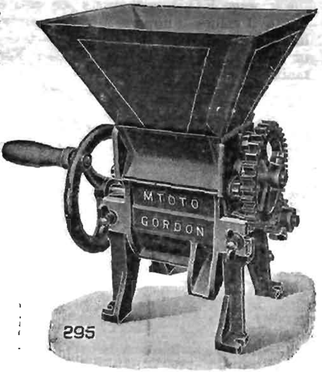

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fair stocks of both varieties (Jamaica and the foreign West Indies) carried over from the past Season (1934), it proves conclusively that the amount of the Imperial Preference of 7/- per cwt enjoyed by Jamaica is not of sufficient assistance to the Jamaica producers. It must also be considered that there are also fair carry over stocks of California (foreign) also of good Pale Jamaica and Canadian Clover so that the total annual output of Honey produced in the British Empire is at present sufficient to supply the needs of this country, and it therefore becomes necessary to increase the duty on the foreign Honey to enable the total production of Empire Honey, together with the home produced (English and Scottish) Honey to be absorbed annually in this country.

For the protection of our Empire Honey to be of any value the duty on the foreign product must be substantial. We have conferred with the most important Honey Brokers in London who are of the opinion that, in order to give fair play to the Jamaica and Canadian products, the duty on foreign Honey should at least be doubled. In considering the matter it must be borne in mind that about 75% of the Jamaica Honey is of the sort that competes directly with the foreign West Indian varieties and with Chilean and Russian Honey. Should Russia decide in any one year to dump, at any price, an enormous quantity of their Honey in this market, Jamaica would have to sell at the competitive dumped price plus the foreign duty. This conclusion is not only possible but very probable and the fear of the trade that dumping at very low prices may take place at any moment hampers the demand and consequently tends to reduce the market price.

There are other features revealed in the Statistics that should be studied by interested parties in Jamaica for the adoption of measures that might assist the development of the Honey Industry. All other countries are protecting their industries by Government subsidies and and other forms of assistance. For instance: an agreement has been entered into between Chile and Germany whereby a very large portion of Chilean Honey is being taken by Germany at a price much in excess of the price obtainable in England for a similar grade of Jamaica Honey. The business is done by means of what is now known as Compensation or Barter whereby Chile takes German manufactured goods in exchange. The producers in Chile can therefore afford to dump on the London market at very low prices any surplus not taken by Germany.

Now, with regard to the matter of taking steps to assist the Jamaica Honey Industry we have stated above that the Dealers and Bee-keepers should firstly help themselves by means of co-operative marketing along such lines as we have indicated, but there is much to be done in other directions. In this respect representations might usefully be made through the Jamaica Government or by the Jamaica Imperial Association to the Secretary of State for the Colonies on the matter of a substantial increase in foreign duty based upon the facts herein disclosed.

Representations should also be made in the same quarter regarding a serious menace to the Honey trade in this country which directly affects Jamaica. The circumstances may be briefly stated as follows:

About two or three years ago an adulterated form of Honey was placed on the market at an extremely low price. The product consists of syrup or "invert sugar" with a small percentage (probably three to five per cent.) of Jamaica Honey in order to give it the Honey flavour, and is ingeniously labelled "Prepared" Honey. This so called Honey sells at a very low price and is now being largely advertised. The result is that sales have been enormously increased to the disadvantage

of all descriptions of pure or genuine Bee Honey. The matter has become so serious that recently a correspondent in "The Times" newspaper drew attention to it on behalf of the British Bee-Keepers Association in London with whom we have been in correspondence over the matter. The British Bee-Keepers Association have informed us that their Association have no funds to take an action at law, and they do not think it possible to get any Government Department to prosecute.

We are, however, of the opinion that if representations were made by the Jamaica Government to the Secretary of State for the Colonies some action would be taken.

We have had several discussions with some of the most inportant dealers and distributors of Jamaica Honey on this matter and we are definitely informed that they regard the matter as extremely serious, and they all attribute the declining demand for Jamaica Honey to the increasing sales of this "Prepared Honey." Encouraged by the success of the original manufacturers of this product several distributors are now turning their attention to it and meeting with similar success. We cannot too strongly emphasize the importance of the matter and that some action should be taken by interested parties in Jamaica.

Outlook for the New Season.

The Season (1935) has opened up very unsatisfactorily, the reason for this may be in part due to the general depression in trade, but there are several other factors that may be partly responsible. It was unfortunate that some sellers in Jamaica reduced unnecessarily the opening prices for the ordinary grades by 3/- to 4/- after business had been done at the higher limit. This is one important matter that Co-operative marketing would prevent. Another point that has affected the market (temporarily we hope) was called to our attention by a very large firm of distributors. It refers to a paragraph in the monthly Trade Reports from overseas Branches of Barclay's Bank (D.C. & O). which stated in regard to Jamaica:—"A big crop of Honey is expected." Personally we doubt that the present crop of Jamaica Honey will be greatly in excess of last year as this report indicates and which must have originated from a reliable source in Jamaica.

The extent of the crop of Honey depends very largely on weather conditions from now until June, and no one can prophecy the result in advance. This is the explanation we have given to our friends who have become rather alarmed, and are withholding orders for the present. The position may however be corrected by cautious selling, and by regulating consignments from the island by spreading shipments in moderate quantities over specified periods throughout the Season. The market should by no means be pressed with offers, but actual orders at reasonable prices according to quality should not be refused.

The stocks of Jamaica Honey in London Warehouses carried over from last Season, we estimate at about 1,200 Barrels. This is not a large stock compared with previous years and with better care in marketing than was the case last year by some Shippers' Agents, the market can be saved from any serious decline and steady prices should be maintained as there are still a number of distributors with a fair trade for Jamaica Honey.

Future prices rest entirely with our competitors as it is impossible for our friends to purchase their supplies from us if these can be obtained from our neighbours at a lower price.

EDITOR'S LETTER BOX.

The Editor:

Sir,

It may interest the readers of the Journal. Yesterday I had the men weigh a bunch of Giant Maiden Plantains. It had thirteen hands and weighed 120 lbs. I have been growing these plantains since 1928.

I am, etc.
A. G. BENJAMIN,
13.3.35.

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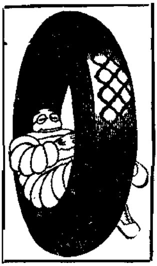

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VERNALIZATION.

We reproduce below an article on a completely new agricultural development known as "vernalization," not so much for its present practical usefulness to us as for an indication of the rapidity of progress in agricultural research. Progress is so unceasing that for the farmer to maintain a comparable efficiency with competitive countries he must realise that agriculture is not only a vocation but a permanent study.

Editor.

(*Extract from Agricultural Bulletin, Bermuda, March,* 1935.)

Vernalization, or if you prefer it, jarovizacija, is a process new to agricultural science, largely a product of the active scientific research which is a feature of the Soviet regime in Russia. Already, although the underlying meaning of the process is not understood, it is being made practical use of in that country, and there seems a chance that, when the principles on which it is based are more fully understood, it may be given a wider application and may become of general value in other parts of the world. In view of its potential importance, it is proposed to give a a simplified account of the process, though such an account must of necessity be superficial.

In brief, vernalization is a process for accelerating the development of the flower and fruit in certain types of plants. In the growth of an annual plant we have first the vegetative development, the growing of the shoot and the leaves, and, normally towards the completion of this, there follows the reproductive development of flowers, fruits and seeds. It has been shown, however, that the reproductive phase does not necessarily wait till the end of the vegetative, but that its occurrence is independent of the size and age of the plant and can be speeded up or advanced by special treatment. For instance, the so-called winter wheats, sown in autumn, germinate at once and produce small plants which, surviving the winter, develop and produce ears the following summer. If such a wheat is sown in spring it fails to form ears because the summer is not long enough for the processes to be completed. If, however, seed of this wheat, previously subjected to the vernalization treatment, is sown in spring it will produce ears during the summer. In other words, the processes are telescoped and the production of fruit advanced by the treatment. Similarly the so-called spring wheats or early-maturing types can be made to mature still earlier by treatment. This is of value in places where there is a short growing season which is limited by the coming of cold weather or drought, and as a result it has been found possible to grow wheat to maturity in areas where a summer drought previously prevented its cropping, and to grow some varieties of barley and oats within the Arctic Circle where the cultivation of cereals was thought impossible on account of the shortness of the summer. The importance of the process to Russia may be gauged by the fact that in 1934 about 1 million hectares (approximately 2½ million acres) were sown with vernalized seed.

For one group of plants of which wheat is a typical example, the treatment consists in soaking the seed until it has absorbed half its weight of water and keeping it at a temperature of about 60% F. until the young roots are seen to be piercing the seed-coat. The seed is then transferred to a temperature a few degrees above freezing for a period of two weeks, when it is ready for sowing. Certain tropical and sub-tropical plants, such as maize and soybean, require, however, different treatment, in that the seed after preliminary soaking has to be kept in complete darkness at a warm temperature of about 77° Fahrenheit for nearly two weeks previous to sowing.

The idea is not altogether strange to us in Bermuda, since it is fairly generally known that Easter Lily bulbs, kept in cold storage for some time, are forced into early flower when they are planted out. This effect can be seen in a small experiment in progress at the Agricultural Station, which was designed to test the effect of cold storage on the growth of lily bulbs. Bulbs planted at the middle of October after one month's storage at 36° F. are now in bud, whereas bulbs from the same box planted a month earlier without any cold storage show no signs of budding.

While it may ultimately be found possible with the aid of vernalization to grow larger and earlier crops on our farms, at the present time and until its effect on vegetable crops has been worked out, its greatest appeal in Bermuda would seem to be to the florists and gardeners. There is no doubt that cold storage might be used extensively for forcing small quantities of Easter lilies and other bulbs, so that flowers could be available over a greater period of time, and the vernalizing treatment could doubtless be used to advantage for the production of early flowering of some of our garden-plants. It might also make available to our use some species which are normally biennial, and which through inability to withstand the summer of Bermuda can not otherwise be grown here. Needless to say, careful experiments are necessary in order to find the best conditions for treatment of each kind of plant, but we mention the process in case there are gardeners or florists amongst our readers who might be sufficiently interested to put this new practice to the test, and who might like to devote some time to the exploring of this newly-opened territory in the plant world.

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(Extract from the Agricultural Gazette, New South Wales, Nov. 1, 1934.)

THE TREATMENT OF SHEEP FOR INTERNAL PARASITES.

So far as the stomach worm of sheep is concerned, the Department is satisfied that in copper sulphate and carbon tetrachloride there are two excellent drenches which, if properly applied and persisted with where necessary, will bring about an outstanding improvement in the condition of the sheep.

Regarding the small Trichostrongyles of the small intestine and also of the stomach, the Department is not satisfied that any drench can be regarded as efficacious, although in some instances reports have indicated that some improvement followed the use, in a regular fashion, of copper sulphate.

The Department holds, very strongly, the opinion that the supply of proper feed is one of the most effective ways of dealing with the effects of internal parasistes in sheep. It has seen noted, particularly, that the provision of small quantities of supplementary feed will bring about very rapid improvement, and it recorded, many years ago that in an experiment with a number of drenches carried out it was found that sheep which were provided with a superior ration but were not drenched at all, did better than any of those treated by various drenches. What the actual food to be supplied should consist of depends somewhat on the circumstances, but it is usually either protein or mineral matter or both which is deficient. At the same time, the Department does not intend that it should be inferred that the supply of additional feed will save all sheep, because if the sheep are permitted to get below a definite point in condition and in power of recovery, no measures either of drenching or supplying feed will immediately stop mortality.

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MARKETING NOTES.

(*Extract from Weekly Fruit Intelligence Notes, 6th March,* 1935.)

CAMEROONS.

The *Pionier*, which is due at London on 12th March, is advised as bringing about 25,000 bunches of bananas from the Cameroons for London, and a further consignment for Rotterdam (due about 9th March).

We note that on the 11th March, 1935, 6,241 packages of Pineapples were imported into Southampton from South Africa.

The importations into the United Kingdom of Grenadillas, Mangoes, and Melons were as follows:—

Shipments of Deciduous Fruits from South Africa to the United Kingdom.

Description of Fruit.	1932-33. To 24th Feby.	1933-34. To 23rd Feby.	1934-35. To 22nd Feb y.
Grenadillas ..	2,984	146	156
Mangoes	3,892	1,083	1,129
Melons	4,466	2,122	1,038

(*Extract from Weekly Fruit Intelligence Notes, 13th February,* 1935.)

Imports of Bananas into Scandinavian Countries.

	1929.	1930.	1931.	1932.	1933.	1934.
	tons.	tons.	tons.	tons.	tons.	tons.
Sweden ..	12,950	13,890	12,680	10,050	7,305	7,177
Norway ..	7,870	8,290	8,575	7,710	5,554	6,443
Denmark ..	6,480	8,960	10,070	6,850	5,238	3,541

(*Extract from Canned and Dried Fruit Notes, February,* 1935.)

AUSTRALIAN PINEAPPLES.

A census taken by the Committee of Direction towards the end of 1933, according to the annual report for the year 1933-34 of the Queensland Department of Agriculture and Stock, disclosed that a large increase in the pineapple bearing acreage in Queensland should be expected in 1935 and 1936, with a corresponding increase in production. The crop marketed in 1933 amounted to 102,989 cases more than in the previous (calendar) year, and the number of cases processed by the canneries increased by 88,976 cases.

Practically the whole of the 1933 crop was processed for market overseas, owing to large stocks on the Australian market. The Committee again secured a grant of £20,000 from the Fruit Industry Sugar Concession Committee to assist in overseas sales, and the growers themselves created a supplementary fund by a voluntary levy of sixpence per case on their cannery payments. It is anticipated, however, that this supplementary fund will not be required, but its creation ensured the absorption by the canneries of all fruit of canning size. The fund will probably be returned to the growers as a deferred payment after the finalisation of the 1934 winter pack.

(*Extract from Weekly Dairy Produce Notes, 8th February,* 1935.)

The following statement gives prices of butter, as issued by the London Provision Exchange to-day, together with those of last week

Butter.	This Week.	Last Week.
	Per cwt.	Per cwt.
New Zealand—Finest	89/- to 90/- up to 92/-	87/- to 90/-
First Grade	88/- to 90/-	87/- 88/- exceptionally 89/-
Finest Unsalted	94/- to 96/-	92/- to 94/-

The above shows a definite tendency for New Zealand butter prices to rise. We must not allow ourselves to become entirely discouraged as to the prospects of our dairy industry.

Editor.

(*Extract from Weekly Fruit Intelligence Notes, 13th February,* 1935.)

CITRUS FRUIT EXPORT REGULATIONS.

New regulations governing the export of citrus fruit have recently come into force in Cyprus. Under these regulations all citrus fruit intended for export is to be subjected to government inspection and grading. No fruit other than that classified as "Fancy" or "Selected" shall be permitted to be exported directly or indirectly to Austria, Belgium, Denmark, Finland, France, Germany, the Netherlands, Irish Free State, Norway, Sweden or the United Kingdom, except that the export of "Early Season Fruit" (oranges) may be permitted between the commencement of the season and the 15th December in each year.

The "Fancy" and "Selected" grades, the methods of packing and marking of which are specified, are defined as follows:—

"Fancy" grade shall consist of fruit of which (1) not more than 2 per cent. by number shall show any sign of injury or blemish from whatsoever cause; (2) none shall show any injury or blemish which in any way affects the quality of the fruit except in its external appearance; (3) all fruits are fully coloured; (4) all fruits are of one variety only and are of the characteristic shape of that variety; (5) all fruits are fully mature, smooth and not over-ripe; (6) none shall be without "buttons;" and (7) none shall be "puffy or dry (*Achyromena*) to any degree whatsoever.

"Selected" grade shall consist of fruit of which (1) not more than 10 per cent. by number shall show any sign of injury or blemish from whatsoever cause; (2) not more than 2 per cent. by number shall show any injury or blemish which in any way affects the quality of the fruit except in its external appearance; (3) excepting in the case of lemons, not less than 66 per cent. of the surface of each fruit is coloured; (4) all fruits are of one variety only and are of the characteristic shape of that variety; (5) all fruits are fully matured but not over-ripe; and (6) not more than 5 per cent. by number shall be slightly "puffy" or dry.

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These machines are used in batteries, one Charge Pump being sufficient to keep working 12 Knapsack Sprayers, although, of course, a smaller number of these may be used with one Pump. The Pump can be supplied either fitted on trolley for wheeling or on a wooden stretcher with carrying handles for use on rough and hilly ground. Knapsack containers are made of a Special Brass Alloy for Spraying Lime Sulphur, and have a liquid *and working* capacity of up to 3 gallons. Total capacity 5 gallons. The weight of each Knapsack is 22 lbs.

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3. It can be charged with liquid and air in about three minutes.
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OTHER SIZES ARRANGED FOR, ALL 1¼ FINISH.

P. P. CORNICE, 3" 10s.,	12s. per 100
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CAVETTA MOULDING, 1½"	7s. " "
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" " 1¼"	6s. " "
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P. P. FOOT RAIL, 2" x 4"	40s. " "

Apply at 24-26 East Street, Kingston. 'Phone 2794.

FENTON'S CABINET ESTABLISHMENT.

(*Extract from Agricultural Bulletin, Bermuda Department of Agriculture, January,* 1935.)

CHARGES AT GOVERNMENT PACKING HOUSES, 1935.

The Board of Agriculture has fixed the following charges in connection with grading and packing of export vegetables at the Government Packing Houses, effective 1st January, 1935.

Cabbage	six pence per crate
Carrots	five pence per crate
Onions and Potatoes	three pence per crate
Tomatoes	five pence per crate

Crates will be furnished at c.i.f. cost plus two-pence per crate towards the cost of wharfage, cartage (inwards), making up crates and cartage to the dock from the Agricultural Station.

Half the rail charges on packed vegetables carried by the railroad from the Southampton Packing House to the dock will be recovered from the shippers.

(*Extracts from Weekly Fruit Intelligence Notes, 6th February,* 1935.)

Bananas.—Imports of bananas from Empire sources totalled approximately 10,426,000 bunches, as compared with 6,630,000 bunches in 1933 and 10,736,000 bunches in 1932. The decline in 1933 was accounted for solely by the decrease in supplies from Jamaica resulting from the serious storm damage to plantations in the Island. Empire imports last year represented 61.1 per cent. of aggregate imports, as against 62.2 per cent. and 41.7 per cent. in 1932 and 1933, respectively.

Grapefruit.—Imports of grapefruit from Empire countries in 1934 reached the record total of 520,000 cwts, or 53.4 per cent. of aggregate imports from all sources. Supplies from Palestine, South Africa and the British West Indies all showed further marked increases and reached new high levels.

Pineapples.—Imports of pineapples from Empire countries, the bulk of which come from South Africa, reached a new high level in 1934 with a total of over 16,000 cwts., or 30.5 per cent. of aggregate imports of this fruit.

LOCAL PRODUCE PRICES.

Annatto—New crop, Prime Red Seed		16/- delivered Outport
		17/- delivered Kingston
Cocoa—Ordinary	..	18/- " "
	Fair Fermented	18/- " "
	Estates Fermented	19/- " "
Coffee—Good, Ordinary		28/- " "
	Fine, Ordinary	30/- " "
	Manchester-B	30/- " "
	Manchester-A	32/- " "
Honey—White	..	1/9 per gln. delivered Kingston
	Pale	1/3 " " "
	Light	1/- " " "
	Dark	9d. " " "
Kolanuts—Sound quality, well cured		6/- delivered Outport
		7/- delivered Kingston
Orange Oil—Sweet, sound quality		5/- per lb. delivered Kingston.

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REPORT ON PEANUT COMPETITION IN ST. ELIZABETH.

By Mr. H. W. Lynch, Instructor and Mr. P. St. L. Bacquie, Supervisor
of Instructors who acted as Judges.

15th March, 1935.

We now present our report on Peanuts grown in St. Elizabeth, which covers the experimental plot at Williamsfield and those grown for the Competition.

This has been rendered possible by the generous action of Mr. P. W. Sangster, member of the Board of Management, who placed the means at our disposal.

First we shall deal with the experimental plot. On account of the rains in February we had to reap right away, as the first nuts to mature started to germinate and some of the plants which had died down completely, had all the mature nuts sprouted and became a loss.

The Plot was four squares in extent and divided as you suggested into nine sections and the record of each is shown in the report. Nos. 1, 5 and 9 Sections were lightly mulched with guinea grass; Nos. 2, 7 and 8 were not helped at all; Nos. 3, an 6 and 9 were trenched for irrigation in case of drought, but as the weather continued normal up to the time of clearing, no water was turned on them. No. 4 was manured with litter from the Cow Pen.

Attention to Plot.

The Plot was prepared and planted at a cost of 21/-. It costs 23/- for three weedings. Reaping cost 6/9, rent of the plot cost 7/6 making a total of £2 18s. 3d.

The cost is high, but the cost of experiments is usually so, as labour must be satisfied when it is necessary to put work through at the proper time and without delay. This does not include anything for first ploughing as Mr. Brodie did this free of cost, neither is the supervision of the Supervisor and Instructor taken into account.

The plot was planted on the 25th September, 1934 and reaped on the 21st February, 1935, so that this will bear us out when we say that the crop will mature in these parts in 4½ to 5 months.

Results from the Plot are as follows:—

No. 1 Section gave	20 lbs.
2	23½
3	20½
4	28½
5	40½
6	27½
7	21½
8	36½
9	30½
Total	239 lbs. gross.

As far as we could make out, the whole plot was unknowingly planted with three varieties. One which spreads along the ground (in one case) measuring 6′ across) and two which grew upright. One yielding large pods with 3 or 4 kernels, and the other, small nuts with one or two. We counted several roots of each and found that the best of the spreading ones gave as many as 85 nuts, while the best of the upright ones gave 61.

It might appear from this that the first named variety would be best for planting, but as the other can be planted much closer and

mulched in dry areas and be more easily reaped, we would recommend it in preference.

Plan of the Plot is appended.

Competition.

We will now go on to the work done in judging the Plots grown for the Competition. In all, we judged 93 plots. There were a few more entered, but for one reason or another, were withdrawn. It took us seven days to do the judging and it entailed a great deal of walking to visit each competitor, and we are rather conservative when we compute the distance covered on foot to be 19 miles.

Judging this Competition entailed much more hard work than we thought of, for some of the plots were in most out of the way places and we had to leave the car for 4 or 5 hours at a time and go on foot.

It was exceedingly interesting, however, particularly as we recognised in this, a possible new crop for the Society to work on. We noted the interest with which the St. Elizabeth folk regarded it, and most f them have promised to continue experiments.

INSPECTORS OF PLANT DISEASES.

Inspectors of Plant Diseases.	Districts.	Addresses.
Campbell, R. Glen	Eastern St. Thomas	Bath
Russell, L. A.	Western St. Thomas	Seaforth
Wilmot, A. T.	Portland	Buff Bay
Carnegie, O. L.	Eastern St. Mary and St Andrew	Castleton
Bewley, C. J.	Eastern St. Mary	Clonmel
Macfarlane, G. G.	Western St. Mary	Lucky Hill
Whittingham, W. S.	Central St. Mary	Port Maria
Graham, F. F.	Southern St. Mary and North St. Catherine	Troja
Thomson, N. E. C	Glengoffe District	Glengoffe
Dowden, I. L.	St. Catherine	Linstead
Carey, E. M.	Eastern St. Ann	Claremont
Case, C. J.	Western St. Ann and Eastern Trelawny	St. Ann's Bay
Anderson, L. C.	Trelawny	Albert Town
McHardy, N. R.	St. James	Montego Bay
Coy, S. O.	Eastern St. James	Point
Allen, M. S.	Hanover and Westmoreland	Lucea
Arnaud, A. D.	St. Elizabeth	Cambridge
Castello, W. C.	Manchester	Spaldings
Wainwright, N. A.	Clarendon	Frankfield

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The plots were ¼ square in extent, but none of them were quite filled with plants on account of poor germination. We counted the plants in each, however, and some of them have averaged quite well.

We append a list of Competitors and the amount in pounds reaped for their efforts.

When we came to a Plot of less area than that required, we did not include it in the Competition, but all the same we stayed with the owner long enough to go into the details of his next planting and reaping.

In the Rose Hall area plantings did not come up to expectations as only a few put in the required area, and germination was very irregular.

The Bull Savannah Plantings were better in that most of the Competitors there put in the size plot required and the growth of plants was better and so were the returns.

The Pedro Plains area, including Williamsfield, is quite suitable for this crop but so few tried it out.

The Santa Cruz-Nain area is also suited, but here again just a few persons went in for the Competition.

As a result of this Competition we have acquired some fairly definite information which we now pass on.

Time for Planting.

For the Spring Planting, from the middle of February to the middle of March; and for the Fall Planting, from the middle of August to the middle of September. The object of this is to get the plants growing and bearing in the rainy time, and ready for reaping in the dry.

Soils.

The soils most suited to this crop are the light loose soils which are found in the Pedro Plains, Bull Savannah, Santa Cruz and Nain areas.

Clays are unsuitable because they contain too much water in the rainy weather and harden too much in the day.

Distance for Planting.

This depends on the variety to be planted. The spreading variety requires to be set out 2½′ by 2½′, while the upright type which can be mulched should be planted 1½ by 1½.

Method of Lifting.

A fork should be used to loosen the earth at the roots and the whole peanut taken up and shaken, then turned upside down in the sun till the moisture dries off before picking from the bushes for further drying on a barbecue. This drying should be continued till they are "bone dry" and the kernels shake very loosely in the pods: if this is not done they will mildew very badly when stored or bagged for transportation.

Pests.

There are several pests which attack this crop; among them are mealy bugs, wire worms, cut worms, and rats. In no case was the damage excessive, except where rats destroyed the best part of one crop. We must remark, however, that the owner of the plot made no attempt to control them.

Value of Local Competitions.

These local Competitions are very useful indeed, and if we had more of them and regularly, they would stimulate production more than anything else.

We append a list of growers and the weight of nuts they obtained. Mr. Jos. Powell of Bull Savanna gets 1st Prize. Miss Gladys Brodie

of Pedro Plains, 2nd, Mr. Ernest Powell of Bull Savanna 3rd, Messrs. *Chas. James of Pedro Plains and S. H. Brodie of Santa Cruz tie for* 4th, and Mr. Levi Lewis of Bull Savanna gets 5th.

Name.		District.	Weight.	Prize.
1. Joseph Powell	..	Bull Savannah	68¾ lbs.	1st
2. Gladys Brodie	..	Pedro Plains	42	2nd
3. Ernest Powell	..	Bull Savannah	39½	3rd
4. Charles James	..	Pedro Plains	35	4th
5. S. H. Brodie	..	Santa Cruz	35	
6. Levi Lewis	..	Bull Savannah	34½	5th
7. James Rochester	..	"	31½	
8. C. E. Griffiths	..	Santa Cruz	28	
9. Charles B. Lewis	..	Bull Savannah	26¼	
10. Enoch Brodie	..	Mountainside	26	
11. Mrs. Edna Brodie	..	"	26	
12 Joshua Smith	..	Bull Savannah	25½	
13. Jemima Thompson	..	"	25	
14. Albert Simpson	..	"	25	
15. Wentworth Elliot	..	"	24½	
16. J. C. Wright	..	Santa Cruz	24½	
17. Claston Roye	..	Bull Savannah	23	
18. Arthur Linton	..	"	22	
19. *Lilian Seaton*	..	*Rose Hall*	21½	
20. C. A. Blythe	..	Bull Savannah	21¼	
21. J. A. Maxwell	..	Nain	20	
22. John Linton	..	Bull Savannah	20	
23 David Powell	..	"	19¾	
24 Albert Neil	..	"	18	
25. S. A. Blythe	..	Santa Cruz	17	
26. Richard Edwards	..	Bull Savannah	17	
27. Eugene Moses	..	Nain	16¼	
28. Vernon Hanson	..	Santa Cruz	16½	
29. W. H. Hanson	..	Rose Hall	15½	
30. S. L. Blair	..	Pedro Plains	15½	
31. Michael Harrison	..	Nain	14	
32. William Swabey	..	Rose Hall	14	
33. C. Bellanfante	..	"	13½	
34. D. V. Robinson	..	"	13	
35. Lionel Barnes	..	Nain	13	
36. Lucy James	..	Pedro Plains	12	
37. Lamata Lewis	..	Bull Savannah	12	
38. Morrel Witton	..	Rose Hall	11	
39. Benjamin Heath	..	Bull Savannah	11	
40. Charles Ellington	..	Rose Hall	11	
41. Duncan Monteith	..	"	10	
42. *R. A. Mills*	..	*Nain*	9	
43. Sidney Mullings	..	Rose Hall	8	
44. Sarah Simpson	..	"	7¾	
45. Joseph Powell	..	"	7¼	
46. Eric Simpson	..	"	7½	
47. Miss K. Holness	..	Bull Savannah	7	
48. Rositta Holness	..	"	7	
49. Mrs. Rowe	..	Rose Hall	7	
50. Miriam Powell	..	"	6½	
51. Wilbert Rochester	..	Bull Savannah	6¼	
52. Eli Sinclair	..	"	6	
53. Mana Johnston	..	"	5	
54. Edward Bellanfante	..	Rose Hall	4½	
55 Joseph Pennard	..	Santa Cruz	4½	
56. W. H. Pinnock	..	Rose Hall	4	
57. Rhoda Thomas	..	"	4	
58. Julius Lewis	..	"	4	
59. Wilbert Dyer	..	Bull Savannah	3½	
60. Alfred Bent	..	Rose Hall	3	
61. Daniel Hamilton	..	"	3	
62. James Palmer	..	"	2½	

Peanut Plot, Mountainside.

No. 1.—Mulched—Yield 20 lbs.
No. 2.—Not Treated—Yield 25¼ lbs.
No. 3.—Trenched—Yield 20¼ lbs.
No. 6.—Cow Manure used—Yield 28¼ lbs.
No. 5.—Mulched—Yield 40½ lbs.
No. 6.—Trenched—Yield 27½ lbs.
No. 7.—Not Treated—Yield 21½ lbs.
No. 8.—Not treated—Yield 36½ lbs.
No. 9.—Trenched and Mulched—Yield 20¼ lbs.

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ANDREW AGUILAR, Phone 3059.

(*Extract from The Agricultural Gazette New South Wales, Nov.* 1, 1934.

CANNIBALISM IN FOWLS.

ASSOCIATED WITH A DEFICIENCY OF ANIMAL PROTEIN IN THE DIET.

L. HART. B.V.Sc., H.D.A., Veterinary Research Station, Glenfield.

The beneficial effects of feeding meatmeal and other protein supplements of animal origin to poultry are so generally recognised that it is now the adopted practice to include varying percentages of these nutrients in the ration.

Protein Requirements Heavy.

The high protein requirements of the fowl, particularly the laying hen, can be quite readily understood when the large amount of protein that is utilised for egg-production alone is realised. Optimum amounts have been determined in experiments by various workers and the recommendations made by the Department are based on the results so obtained. It is, however, of interest to know that animal protein cannot be replaced in the diet of poultry by protein of vegetable origin.

Thus it has been shown in work carried out in America that no better results were obtained by the addition of up to 25 per cent. of a *vegetable* protein supplement to the laying mash than if no protein supplement at all had been added.

In considering the ill-effects which may follow the giving of a ration not balanced as regards animal protein we have to consider two conditions—

1. Excess of animal protein.
2. Deficiency of animal protein.

Where an excess of protein is given there is the liability that the birds will become affected with the condition known as "visceral gout." In this article, however, we are more concerned with the ill-effects which follow the failure to give adequate amounts of this food supplement.

Ill-effects of Protein deficiency.

Naturally, if the protein intake of the bird falls below its requirements the egg yield will drop and the bird will fall away in condition. If such a state of affairs came about whilst the bird was in its natural state it would hunt for a source to supply its craving. Under the conditions of domestication imposed by man birds do not have a wide range, and the only available source of protein apart from that contained in the ration is the flesh of its fellows, and the bird thus resorts to cannibalism.

The attack is usually made on a bird just after it has laid an egg when the vent, at which the other birds pick, is still partly everted. Owing to the vicious attacks of the other birds, and the bleeding which ensues, the victim soon falls and the attack continues usually until the bowels are drawn out and devoured, and the bird practically eviscerated. The opening through the vent is often so small that it is difficult to realise that the evisceration could have taken place through it.

A Case in Point.

Two separate instances of the condition were encountered by us early in the year, and in each case the birds were being run under an intensive system. In the first case the owner submitted two birds which had died overnight and reported that fourteen birds had been lost, all of which had bled freely from the vent before death. On postmortem examination of the two birds submitted it was observed that the feathers round the vent were soiled with blood, the abdominal cavity contained a mass of clotted blood and the bowel and oviduct

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From 6 or 7 Weeks to 4½ or 5 Months

PIONEER GROWING MASH
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From 4½ or 5 Months on

For Egg Production

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Turkeys:

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Pioneer TURKEY Starter

From 6 Weeks old on

Pioneer TURKEY Grower

Pigeons:

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were severely lacerated. On inquiry it was found that up to this time a small amount of a commercial concentrate was being fed. It was suggested that 5 per cent. meatmeal should be supplied in the ration Six weeks after the case first came under our notice the owner reported that deaths ceased immediately following the feeding of meatmeal (4 per cent. of ration) and the egg-production rose to 50 to 70 per cent.

Meatmeal Prevents Cannibalism.

The second case occurred among a small experimental flock maintained at Glenfield Veterinary Research Station. Two birds were lost, the deaths occurring on consecutive days. Immediately following the first death, specks of blood were detected on the beak and head feathers of one of the remaining birds. On postmortem examination of the dead birds similar findings to the first case were noticed, but in this instance the whole of the bowel was missing in each bird.

These birds had been maintained for three weeks on a mash of bran, pollard and bonemeal, with wheat and green feed. Meatmeal, which previously had been fed, was lacking, as we had exhausted our stock and were waiting for a fresh supply. After the second death meatmeal was obtained and fed at a 5 per cent. level in the mash. In addition, the birds were spilt into two groups, one group being placed in another yard for three weeks. No further deaths from cannibalism have occurred up to the time of writing, six months following the feeding of meatmeal.

From the foregoing it will be seen that an adequate supply of animal protein is required by poultry. If this is not supplied in the ration the craving for such may be so intense as to cause the birds to attack others in the pen, and to satisfy the body demands by resorting to cannibalism.

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TIMBER SEEDLINGS.

We have been advised by the Government Forest Officer that timber seedlings are now available for distribution to those interested. The need for afforestation is generally admitted and planters large and small should avail themselves of the coming seasons to embark on a campaign to establish economic and forest trees on those portions of their holdings appropriate to this.

These plants are free to Planters and will be sent out in large or small quantities and if sent by rail there will be a small charge for cartage and railage.

The Forest Rangers and Nurserymen have been instructed to deliver plants to any small settler applying for plants on the spot at the nurseries at "Hardware Gap" in Portland, "Monklands" in St. Thomas, "John DeLuskie" in St. Mary, "Shooter's Hill" in St. Andrew, 'Colonel's Ridge" in Clarendon and "Bergen" in Manchester, and the small nursery in St. Ann.

Information regarding the varieties available and their uses supplied as by the Forest Officer are given below.

Timber plants for free distribution, with Botanical names and uses and quantity.

Name.	Bot. Name.	Use, quantity.
1. Mahoe	Hibiscus elatus	Cabinet work, carriage and cart work, coopering, housework and shingles, boat work and as shade trees. A small quantity
2. Bitter Damsel	Simaruba Officinalis	Used for making "Beacon" match-sticks and boards for indoor work. About 1,000 ready for distribution.
3. Cedar	Cedrela Ordorata	Housework, shingles, cabinet work, coopering and for numerous purposes. A very useful wood. A fair quantity now ready for distribution.
4. Wild Tamarind	Pithecellobium Filicifolium	Housework, turning, flooring, cabinet work, posts and fuel. A splendid tree for re-afforestation purposes as being leguminous. Its seeds grow rapidly. About 1,500 ready.
5. Wild Prune	Prunus occidentalis	House building, fuel, piles, posts, sleepers and dye. About 500 on hand.
6. Mahogany (native)	Suretenia Mahogania	Cabinet work, house building, framing. Very valuable wood. 400 to 500 plants on hand.
7. British Honduras Mahogany	Mahogania Honduras	Same uses as above—about 300 plants on hand.
8. Fiddlewood	Citharexylum Surrectum	Joists and other purposes in house building, wain tongues, wagon and cart building, sleepers, knaves, etc. A fairly fast growing tree. About 1,500 plants.
9. Bulletwood (white)	Dipholis Solicifolia	Bridge building, millwork, turning, cart-building, knaves, house building, railway sleepers, posts and fuel. About 10,000 plants.

Name.	Bot. Name.	Use, quantity.
10. Bulletwood (red) ..	Dipholis Nigua	Millwork, carts, bridge plants, telegraph poles, railway sleepers, piles, posts and fuel. About 2,000 plants.
11. Yellow Sanders	Buchenavia Capitala	Used in making "Beacon" match-boxes, inlaying and turning, flooring and indoor work, takes a beautiful polish. About 1,000 plants.
12. Pinus ..	Pinus Massoniana	Housework, carriage work, coopering, fuel, shingles and boards, bridge planks. A fast grower on high elevations, largely used on the Reserves.
13. Eucalyptus ..	Eucalyptus Citri-*odora*	Imported from Australia. Carriage and cart work, furniture, fuel, housework and posts. A lovely fast growing tree, useful for afforestation purposes and for drying land, inclined to be a bit wet. Prefers high lands, but grows anywhere.
14. Redwood ..	Erythroxylum Areolatum	Turnary, tool handles, furniture, house building. Small quantity.
15. Juniper Cedar .	Juniperius Carbor-densis	For interior ornamental housework, cabinet work, posts, very lasting and liked for its its lovely scent. About 8,000 plants.
16. Woman Tongue	Allizzia lebeck	Millwork, fuel, posts, and house building, small quantity. A useful afforesting tree for dry areas. Seeds and plants available.
17. Sweetwood (yellow) ..	Neotantra Antil-lana	Indoor work on housebuilding, posts, rafters, etc. About 1,000.
18. Rose Apple ..	Jambrosa Vulgaris	Fuel, coopering and posts. Splendid re-afforesting tree for all altitudes and conditions. In large quantities.
19. Yacca ..	Podocarpus Urharmi	Cabinet work, inside work, inlaying and as a beautiful shade or ornamental tree. Useful for elevations of 1,000 up. Small quantity.
20. Bracatinga ..	Bracatinga	Said to be useful tree for re-afforesting denuded areas. Seeds recently imported from Brazil by Secretary, Jamaica Agricultural Society.
21 Wild Annatto ..	..	Fuel, posts and house lumber. Fair quantity.

E. M. Brown, F. O.,
1.4.35.

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BRANCH NOTES.

All Reports received are acknowledged in this section of the Journal. This month we have only been able to put in print Notes from Branches who have not yet had a publication this year.

Branch Secretaries should **write on one side of the paper only.**

[Ed.

ST. CATHERINE: Bellas Gate.—Meeting 11th March. Present: Instructors O. P. Martin, and W. L. Shirley, F. N. Barrett, 40 other members, juveniles, and visitors. There was a discussion on the Parochial Dispensary and the Agricultural Show. Four Authorised Persons were present, who reported all correct. Instructor Martin in his address encouraged the members on various points, and a vote of thanks was accorded him. Mr. W. L. Shirley, Instructor for Clarendon gave a very encouraging address. He spoke on various points, but his chief subject was the forthcoming May Pen Agricultural Show. He explained important matters pertaining to the Show, and solicited the presence of the members and invited them to send exhibits. A vote of thanks was accorded him. Minor matters were dealt with and the meeting terminated with the singing of the National Anthem.

Bellas Gate P.O. A. A. McCurdy, Secretary.

Princessfield.—Meeting the 25th March. Present: the 1st Vice-President in the chair, many members and Instructor C. S. Byles. It was decided that the Hon. Member for the parish be invited to attend a special meeting on Sunday the 28th proximo. A lengthy discussion took place regarding the caring, pruning and keeping of citrus trees. The instructor pointed out the right way of securing the fruits from diseases. He was thanked. After minor matters were dealt with the meeting was brought to a close by the singing of the National Anthem.

Bog Walk P.O. P. G. C. Graham, Secretary.

Lower St. John's.—Meeting 4th March. Present: President, the Instructor. 23 members and a few visitors. The President addressed the meeting on the following:—(a) Fertilizer trials on holdings and benefit of same; (b) Co-operation in purchasing fertilizers: (c) The Penny Bank and benefits to the community. The Instructor also spoke on fertilizers and urged the members to pool their interest in ordering same. The Land Settlement Scheme was hotly discussed and it was unanimously decided to telegraph to the Member of the Legislative Council to attend a mass meeting to be held on the 11th March, in order to put before him the question, and to urge him to push the matter in Council; the Seretary of the J. A. S. to be written to, asking hm to get information on the matter. The Authorised Persons came in for bitter censure. It was decided to write to the Parent Society with a view to getting these men to hand over their badges and handcuffs. The deputation that waited on the Parochial Board gave report on the waterpipes and the terminii of same. Due notice was given of the general annual meeting to be held in April and the election ofnew officers. The National Anthem terminate the meeting.

Guanaboa Vale P.O T. Z. Gordon, Secretary.

Victoria.—Meeting 21st March. Instructor Byles reported on the Lluidas Spring, and the postponement of the proposed excursion to Manchester. Mr. Heath a member of the Committee was praised for the setting out of his citrus grove, and for his help on Miss Range's holding. The Secretary was asked to correspond with the Sergeant re instructions to Authorised Persons. The Instructor gave a comprehensive address on better methods of working in the Branch Societies. Some of the methods are to be discussed more fully at the next meeting. It was decided that a letter of condolence be sent to Mr. T. J. Cawley, 1st Vice President of the J. A. S. on the death of his wife. Minor matters were dealt with. The roll call was taken, and the meeting closed with the singing of the National Anthem.

Linstead P.O. M. L. Burrell, Secretary.

Water Mount.—Meeting February 28. There was a good turnout of members among them was Instructor O. P. Martin. The President, Mr. R. S. Cole expressed appreciation

of the attendance. Authorised Person reported all correct. Committee's report was given, in which keen interest was shown to increase the membership. Instructor Martin addressing the meeting stressed the point of inviting outsiders to the meetings, and also the importance of getting in more ladies. He encouraged juveniles, and gave them useful hints regarding the planting of seeds. Members were advised to take up citrus cultivation, Valencia oranges and Marsh seedless grapefruit. He also asked that the Hon. E. A. McNeil, M.L.C. for the parish be invited to attend next meeting. Mr. I. T. Johnson, M.P.B., next addressed the meeting. Juveniles were encouraged by him, and advised not to be afraid of the soil. The speakers were heartily thanked. Miss I. I. Thompson moved a resolution pertaining to the improvement of road No. 19, and expressed the hope that it be made into a first class driving road at an early date. New members were received and fees were taken. The meeting was brought to a close by the singing of the "King."

Watermount P.O. M. J. GOODE,
Reporting Secretary.

Hampshire.—Meeting 26.2.35. Present: Mr. V. P. DaCosta, President; Instructor C. S. Byles and eleven other members and many distinguished visitors. The President resented strongly the attitude of an Authorised Person towards him. There followed a heated discusson. The Instructor read extracts from rules for the guidance of Authorised Persons. Mr. Hinds a former Secretary wrote thanking the Branch for books received in appreciation of his past services. Authorised Persons reported favourably. The Instructor spoke on the need of "Mass Production" and made some useful suggestions for the beneficial working of the Branch, these to be considered and dealt with at the March meeting. He was thanked. The meeting then terminated.

Riversdale P.O. E. A. L. ROWE,
Reporting Secretary.

Phillipsburgh.—Meeting 11th March. There were present fifteen members, nine visitors and Instructor L. A. M. B. Coke. The Instructor in his address said that because of rain during the fall of last year he could not visit the branch. He promised to continue the house to house demonstration which he began some time ago, and which proved beneficial. "The prosperity of Jamaica" said he "depends on the soil." In support of this he pointed out that manure should be used to prevent exhaustion of soil. Continuing he said that as the area for cultivation at one's disposal is apt to be very limited good cultivation rather than extensive cultivation should be emphasized. He stressed the usefulness of rabbits for providing manure. To give an idea of the activities of other branches, the Instructor said that in one district he helped in the cultivation of one square chain of land. Corn, cabbage, lettuce and yams were planted. These crops brought in four pounds (£4). The conclusion is that an acre of land scientifically cultivated can produce crops to the value of £40. The Instructor related an experiment he had seen made on manuring bananas which he said resulted in each plant producing either a nine hand or an eight-hand bunch. He was heartily thanked for his address. In a discussion among the members, Mr. C. B. Higgins supported the rearing of fowls. Messrs. A. A Hudson and M. Scott supported the rearing of rabbits. Mr Scott said that while some bananas of his received rabbit manure they produced nine-hand bunches. When he ceased using it they began to produce seven-hands. Mr. C. Hudson said that he had found cane manure very good. Mr. H. Jackson contended that while the members always made valuable suggestions they never always acted on them. He thought it time that the branch did something useful. Other matters were dealt with and the meeting adjourned.

Redwood P.O. C. A. LESLIE,
Secretary.

ST. ANN: Bohemia.—Meeting 7th February. Present: The President, and eleven members. Owing to various setbacks no meetings were held since last November. After preliminaries the President and Secretary gave reports of the last meeting of the Manchester Branches Associated. The financial standing of the Branch up to date was presented. Authorised Person Frederick Williams reported difficulty and delay he suffered in receiving remuneration for duty performed. The meeting expressed dissatisfaction with such a circumstance as it did not tend to encourage the suppression of praedial larceny. The one Authorised Person present gave his report and the meeting adjourned.

Lorrimers P. O. N. C. ROBINSON,
Secretary.

TRELAWNY: Alps.—Meeting February 20. Present: Mr. R. Bennett in the chair, Instructor M. N. Thompson, seven other members and five visitors. The President and Secretary on behalf of the Branch welcomed the Instructor who in his reply not only accepted the welcome and promised sincere service to and co-operation with the Branc

members but also gave hints concerning the smooth running of the Branch and dilat on the value of scientific agriculture. The Instructor was thanked. A discussion on t advisability of changing the day of meeting proved futile—the hour, however, was chang to 7 a.m. "The King" terminated the meeting.

Ulster Spring P.O. ED. N. BURKE, Secretary.

Jackson Town.—Meeting 25th February. Present: Mr. L. N. J. McKenzie, Presiden Instructor C. M. A. Robotham, 10 members and one visitor who was afterwards elected member. Suggestions from the Secretary of the Parent Society bearing on the improv ment of the ram were agreed to. Letter from the S.M.O. was read and discussed. Tl Secretary was asked to reply urging the possibility of opening a Dispensary in this distri as it is an immediate need. A resolution was brought forward and deferred to ne: meeting. The Instructor gave some very good suggestions of means of improving tl Branch. The Secretary was asked to write the Manager of the Government Savin Bank on the matter of establishing a Branch of the Bank in the district. The Instruct was asked to give a demonstration on coffee pruning and the planting of seedlings on h next visit to the district. After the Roll was called the National Anthem brought tl meeting to a close.

Jackson Town P.O. A. S. SUDLOW, Secretary.

Warsop.—Meeting 19th March. Rev. C. G. Whylie, President; Instructor, Mr. M Thompson, many members and a number of visitors including a few ladies. Tl Instructor strongly advised that full co-operation be given by this Branch to the promote of the May Pen Show. He exhibited a large number of Banana Borers which he foun in a field at Warsop, as well as a portion of the underground stem of the banana attacke He pointed out (a) that these borers are able to work far more harm than the dreade "Panama Disease;" (b) that suckers for planting should not only be carefully selecte but should not be left for weeks to "wilt" before planting; as there is a likelihood of tl suckers being attacked. He advised re the methods to be adopted to control and destro borers. Many questions were asked by the members. He also advised the use c Amophas as a good fertiliser; A vote of thanks was accorded him. Authorised Person reported all correct. After the roll call the meeting adjourned with the singing of th National Anthem.

Warsop P.O. U. K. WALTERS, Secretary.

Wilson's Run.—Meeting held 12th March was a very profitable one. Several member as well as visitors attended numbering over thirty. Three Authorised Persons reporte all correct. The Instructor Mr. Thompson gave his usual address, which was practica and helpful. He stressed the need of co-operation in the district even in the curing o ginger. He asked members to always say something expecially of the difficulties in thei field cultivation. The annual meeting was fixed for the 9th of April. Votes of thank were tendered and the meeting terminated with the singing of the "King."

Troy P.O. G. E. BAILEY, Secretary.

Wait-a-Bit.—Meeting March 13. Present: Mr. V. C. Robotham, President; Instructo M. N. Thompson and 15 members. Correspondence re Show and Ginger Competitions wa dealt with and members were encouraged to compete and to take exhibits to the Show Delegate's report of Half-Yearly Meeting delivered by the President, very concisely bu comprehensively. He was thanked. Vote of congratulation to the President on hi appointment to the Magistracy, was moved by the Instructor on behalf of the Association President replied. Sample of cane having Mosaic disease was brought by the Instructo from a field visited in the day, and the matter fully dealt with by him. Members wer asked to prepare plots for cane cutting to be distributed by the Instructor at next meeting demonstration to be carried out on one of the plots. President warned members of th danger of spreading Panama Disease by buying ginger plants from districts where th disease exists. Authorised Person reported one arrest. The Association was requeste to get the protection of the Police against loafers and thieves around provision trucks a the food depots on the Spanish Town Road. Meeting terminated with the singing of th "King."

Wait-a-Bit P.O. I. L. ROGERS, Secretary.

WESTMORELAND: Beeston Spring.—Meeting 22.2.35. Present: Mr. J. N Fletcher, President; Instructor G. W. Wray, 6 members and 3 Authorised Persons. Letters from the Secretary Darliston Branch re Show to be held at Enfield was read and a donation voted. The Secretary was instructed to invite the Corporal at Bluefields to address the Authorised Persons. Messrs. J. Fletcher and Simeon Stewart presented

samp e ears of corn to be sent to the Secretary of the Parent Society. White yams did so well in 1934 that the Champion, Mr. John Thompson, was asked to relate the secret of his success. It was decided to have a competition this year, and plans to raise funds were discussed. The Instructor who promised to be at the nursery (citrus) next month, stressed the importance of thorough preparation of land, condemned in unmistakably emphatic terms the practice of burning valuable manure, encouraged the reading of the Journals; showed the value of preserving our good name in quality (ginger an example), and answered in a masterly way questions put to him regarding the use of ashes. The singing of the National Anthem terminated a profitable meeting.

Beeston Spring P.O. C. G. SIMMS,
Secretary.

Lennox Bigwoods.—Meeting 8th March. Present: Mr. D. E. Thompson, President; Instructor G. W. Wray, 9 members and a few visitors. The Instructor gave a very profitable, practical and interesting discourse on coffee culture. He also enlightened those present on method for dealing with the diseases which attack tomatoes and potatoes. He greatly deplored the poor attendance and encouraged all present to do their bit towards brightening up the meetings, bringing out other members, and attending regularly. A very hearty vote of thanks was conveyed to him. The President addressing the meeting, said there should be no discouragment through the attendance as the Branch was yet in its infancy, and it was only a matter that the benefits to be derived from the meetings were not yet properly understood by the majority of people. He urged on those present the necessity for a larger membership. The meeting adjourned with the singing of the National Anthem.

Newmarket P.O. CARL V. THOMPSON,
Secretary.

Haddo.—Meeting 4th March. Present: Mr. I. T. Leslie, President; Instructor F. W. Kelly, 8 members and 2 visitors. A discussion in which the members took part, took place on the lack of interest displayed by members of the Branch in agriculture. Matters relative to the All Island Show at May Pen were discussed. The Instructor explained how small settlers can restore plant food in the soil to obtain good crops continuously. He was thanked and after some interesting remarks from the President, the meeting terminated by singing the National Anthem. During the day the Instructor visited two holdings, as also the school garden which is being remodelled and assisted in the lining and trenching.

Ramble P.O. A. M. ROBERTS,
Secretary.

ST. JAMES: Bickersteth.—Meeting 7th March. Present: President presiding, the Instructor, and 11 members. As matter arising out of minutes it was decided to purchase certain things for the newly formed Juvenile Branch. Minor matters were then dealt with. It was decided to invite the M. L. C. for the parish to pay a visit to the district, whenever possible so that certain needs may be pointed out to him. An agenda for the next meeting was fixed and the meeting terminated.

Bickersteth, Montpelier P.O. LEO. A. SPENCE,
Secretary.

PORTLAND: Craigmill.—Meeting 5th March. Present: Mr. J. T. Lowe, President: ten other members and four visitors. The three Authorised Persons present had nothing to report. Their handcuffs and badges were presented in good condition. The President welcomed the visitors and spoke of the good that is being derived from, and through the Agricultural Society. The Secretary suggested that steps be taken to arouse interest in the Branch, and after a short discussion it was decided that a debate be held on the subject of coffee and coconut which was the more profitable to be cultivated.

On the suggestion of Mr. A. Palmer, it was agreed to purchase a spray for the Branch. After a short discussion re funds for its purchase it was decided to have a meeting in celebration of the 17th Anniversary of the Branch on the 21st of May, D.V In his closing remarks, the President urged on all to make their holdings places of importance—they should be securely fenced in, and efforts should be made to cultivate sugar cane and citrus to stand by or take the place of banana which is being rapidly destroyed by Panama Disease. The marking of the roll, and singing of the National Anthem terminated the meeting.

Buff Bay P.O. (Rev.) T. LAWRENCE,
Secretary.

Moore Town.—Meeting March 5. Matter of the purchase of a boar for the Branch was deferred. An article "How to think straight" was read by Mr. J. J. Crawford, from a

Journal of the J.A.S. The Secretary, Mr. R. S. Anglin tendered his resignation as he intends to leave the district. The resignation was accepted, and it was arranged to call a special meeting during the course of the following week to make preparations for a "Send-off" for the Secretary. The Authorised Person reported all quiet. Meeting terminated with the singing of the National Anthem.

Moore Town P.O. (Miss) J. A. HARRIS,
Assistant Secretary.

MANCHESTER: Comfort Hall.—Meeting 8.3.35. Present: Mr. D. D. Palmer, President, and 10 members. It was decided that a letter of sympathy be sent to the Instructor regarding his illness. It was decided that the Parent Society be approached again for a supply of cane plants. Mr. F. C. Perrins who acted as Delegate at the Half-Yearly General Meeting gave a very interesting report. A hearty vote of thanks was tendered him. It was proposed that something be done to put a stop to the prevalent and wholesale stealing of goats and pigs in this and surrounding districts. It was stated that during the last two weeks not less than forty head of goats and pigs were missing, and none recovered. The following resolution was brought forward: Be it resolved that the Government make it compulsory that the butchers and sellers of goats and pigs be called upon to show a genuine receipt, witnessed by a District Constable or a well known resident in such district; also sex and description of the different pig or goat to be mentioned on the said receipt, before disposing with such animal. It was decided to request the Inspector General of Police through the Secretary of the Parent Society to permit District Constables in the districts far away from the regular Police Station to patrol the different districts where the stealing of goats, pigs etc., is rampant, even two times per month. It was felt that this would help to check the stealing of the poor man's stock. It was also decided that the members of the Branch make a special visit to the Grove Place Farm on the 12th April, to get demonstration and useful information from the Superintendent. The meeting was brought to a close by the singing of the National Anthem.

Comfort Hall P.O. W. A. WHITE,
Secretary.

New Green.—Meeting 7th March. Present: Mr. H. P. Gibson in the chair. Instructor H. A. Darby and ten members and visitors. As arising out of the minutes the Secretary was instructed to write to Mr. E. M. Clark re citrus plant to be presented to Mr. Pengelley. As regards the central road for New Green, the Secretary was instructed to write Messrs. Jones and Bennett to ascertain their willingness to allow the road to pass through their premises. The Instructor in his address gave a very helpful address on coffee. He dealt specially with the pruning of the coffee trees, and the use of the right tools for so doing. He showed the advantage the "short top" coffee had over the "long top." He strongly deprecated pruning with a machette, as this was the main cause of hollowness in some old long top coffee trees. Several members spoke on the subject and the Instructor was heartily thanked. After minor matters were dealt with the meeting adjourned.

Mandeville P.O. E. A. GRANT,
Secretary.

ST. ANDREW: Dallas and Constitution Hill.—Meeting 1st March. Present: Mr. Robert I. McIntosh, President; a fairly large turn out of members and the Secretary. The need of an Authorised Person around Dublin Castle area was stressed, and it was decided that Mr. George Thomas be recommended for the position. Members encouraged to attend the forthcoming May Pen Show. The sale of Crown Lands at Hope Gardens was discussed. It was decided to invite two Councillors for the Ward to attend the next meeting, along with the Instructor. Many other matters were talked over and the meeting adjourned with the singing of the National Anthem.

Dallas P.O. Z. BARCLAY,
Secretary.

CLARENDON: Rock.—Meeting 27th February. Present: Messrs. U. Theo. McKay, J.P., Member of the Board of Management, Glaister Baxter, Secretary of the J.A.S., H. G. Dunkley, J.P., M.P.B., President of the C.B.A., W. L. Shirley, and A. L. Virtue, Agricultural Instructors, Mr. Harris, Agricultural Headman, Mr. T. C. Swainson, President, over 26 other members, and about 30 visitors. The President introduced the visitors and asked Mr. Dunkley to take the chair of this being the inaugural meeting. Mr. McKay, the first speaker, took as his subject "The Race Is Never Won." He said among other things that this was true especially in agriculture whether in the field or in marketing—the more we seem and try to know the race has never been won in its efforts

in laboratories, Panama Disease, and other diseases, so also have the Parent Body and Branches much left to accomplish. He quoted figures to show that Trinidad, U.S.A., Porto Rico and Barbados beat Jamaica in their very high percentage of exports. He deplored the waste of citrus in Jamaica amounting to 33⅓% of the yield, but exhorted all to take care to raise the export situation of the district and asked for greater membership to help in getting the government to recognise the importance of the J.A.S. and agriculture because only on the yields of the soil does our trade depend. Mr. Baxter expressed great pleasure in attending, and said that except we recognise that we need help we can't be helped—this can only be done by pooling our ideas and our products so that a large amount of our population can get more than £6 per week from the Agricultural resources of the island. He asked those present to support the Branch, thus helping to make the Society 100,000 strong so as to negotiate for what we want—by 'making the things bear more' to govern the markets abroad, thus producing cheaper and better. He advised the planting of a lot of red peas, tomato, and coffee. He pleaded with members to try and plant new fields of coffee and citrus fruits and not to depend on old fields planted by fathers and grandfathers. He promised to visit the Rock Branch again when it has 100 members. Mr Shirley advised planning work as a branch at the beginning of each year, and check as to whether we are getting the full benefits from our efforts. He advised mending our methods; considering the season and co-operating for branch benefits and supporting Mr. Virtue, the new Instructor. Mr. Dunkley thanked the speakers for their able speeches, after which the induction of the officers of the Rock Branch followed. Four new members were enrolled. After minor matters were fully discussed the meeting terminated with the singing of the National Anthem.

Osborne Store P.O. H. D. THOMAS,
Secretary.

ST. ELIZABETH: *Ginger Hill.*—Meeting held 14th March. Present were: A. G. Barracks, President; E. R. Phillips, Vice- President; L. Davis Barracks, Secretary; W. A. James, A.C.P., Head Teacher Mr. G. W. Wray, Acting Instructor and over 60 members and visitors. The minutes of the last meeting were read and confirmed and matters arising therefrom were dealt with. A letter from the May Pen Show Committee was dealt with. Immediately after this Mr. Wray addressed the Juveniles on the planting, growth and proper care of the tomatoes. His address was well appreciated, and a vote of thanks was given him. A song was rendered by Miss E. R. Phillips after which Mr. E. Hylton, J.P.A. agent at Stonehenge addressed the meeting. He expressed pleasure in seeing so many children present and encouraged them in their movement. He also stressed the fact that they would soon be the future agriculturists of Jamaica. A vote of thanks was given him. A regrettable event took place and that was saying goodbye to Teacher James. He was an important factor in improvement of the Juvenile Society here. The Secretary read an address to him. This was signed by many members and the Agricultural Instructor. As a small token of our appreciation a souvenir was presented along with the address. Teacher James expressed pleasure in receiving the address and souvenir and said he would like to be retained as an ex-officio member of the club. Recitations and songs were rendered. Minor matters were discussed and the meeting terminated with Auld Lang Syne and the Benediction.

Ginger Hill P.O. L. DAVIS BARRACKS,
Secretary Juvenile Branch.

Malvern.—Meeting 22nd February. Present: Rev. S. C. Ashton, President; eight members and three visitors. A warm welcome was extended to the visitors by the Secretary, who also expressed regret at the poor attendance and the unavoidable absence of the Instructor. The meeting regretted that the Parochial Board could not now consider the matter of a district nurse. Mr. E. B. Brown, Delegate to the Half-Yearly General Meeting gave a very interesting and comprehensive report and was accorded a hearty vote of thanks. The President gave a very interesting and instructive address on manures, dealing particularly with the value of certain kinds of manure, and the way in which manure ought to be kept. He was heartily thanked and asked to continue the talk at the earliest opportunity. Mr. T. M. Fagan moved that a Vegetable Growing Competition be started in order to encourage vegetable growing in the district. This was passed. The next meeting was fixed for 26th April, and the meeting terminated with the singing of the National Anthem.

Malvern P.O. (Miss) E. I. BLAKE,
Secretary.

Mocho, New Market.—Meeting 13th March. Present: Instructor Wray, John A. Monteith, President, and 30 members and visitors. The President welcomed the attendants. The Instructor in his address stressed punctuality, as it was not in evidence at the meeting, for without punctuality he said, no business can succeed, and no confidence

maintained. He fully explained what the Jamaica Agricultural Society stands for, and showed some of the different angles from which members can accrue benefits, for example, re water supply, post office and roads. He asked all to take a lively interest in the Branch and try out all instructions of the Instructor, before condemning them. The meeting was encouraged to bring all difficulties to the house, where they could be considered. He encouraged members to pay special attention to the growth, care and proper curing of crops, and if members co-operate to produce large quantities, the J. A. S. will help in finding a market for same. Mr. E. Wakeland in his address referred to tobacco, citrus, coffee, and showed how small stock such as pigs and goats can pay the small man if he resorts to good pedigree. Votes of thanks were conveyed to the two gentlemen, for their helpful addresses. After a proper explanation of the use of the fees, by the Instructor, and a few comments by Secretary, the meeting adjourned by the singing of the National Anthem.

New Market P.O. R. S. A. Tomlinson,
Secretary.

ST. MARY: Baxter's Mtn.—Meeting March 19th, with the Secretary presiding, Instructor Henderson requested members to turn out en masse at the next meeting and have their names enrolled for the new year. He intimated that there's a lot to be done for the advancement of the district, and it cannot be achieved by a few, all must co-operate to make things a success. Authorised Person R. Buchanan reported one arrest. The Instructor visited M. Casey's holding. He also demonstrated on budding in the school garden, to the children. A short lecture was also given them on the functions of leaves. After discussing a few minor points the meeting was terminated in the usual way.

Annotto Bay P.O. R. J. Lawson Ricketts,
Secretary.

Camberwell.—Meeting March 15. Present: Messrs. J. F. N. Walters, President, Instructor C. D. V. Henderson, six other members and one visitor. The irregular attendance of Authorised Persons was lengthily discussed. The sale of wet sugar to Central Factories was proposed. Some discussion arose in which the Instructor gave his views A definite action was outlined to be executed by the Society. Recent correspondence from the Parent Society and that relating to the forthcoming May Pen Show received careful attention. The lecture of the Instructor was intensely interesting and encouraging. He urged a stronger membership in the ensuing year as well as more development in agriculture generally. Minor matters were dealt with and the meeting adjourned.

Annotto Bay P.O. A. E. Leo. Giscombe,
Secretary.

Lewis Store.—Report for quarter January–March, which ends the year 1934-35 for the Branch. On January 7 a meeting was held at which the Instructor was present. He lectured on the care of the banana plantation. On January 14, a special meeting was called and a new Secretary was elected as the former one had vacated the position. February 4 saw a large gathering. The President, Mr. R. C. Fullwood, gave his report as a delegate to the Half-Yearly General Meeting. Instructor Henderson gave a lecture on the growing of Irish potatoes. The Secretary Mr. A. F. Bullock promised to organise a Juvenile Branch. March 4: Discussions re water supply were postponed. The M.O.H. and the Chairman of the Parochial Board have been consulted re this.

Clonmel P.O. Audley Bullock,
Secretary.

Marlborough.—Meeting 26th March. Present: Mr. Z. Ffrench, presiding, 14 others and 31 members of the Juvenile Branch. Messrs. J. Z. Johnson and O. K. Murray was appointed to audit the accounts of the Branch. It was agreed that a deputation consisting of Messrs. J. Z. Johnson, D. A. Ford, O. R. K. Murray and E. Riley, interview the Hon. Member re completion of new road from Richmond via Flinch River to Woodside. Mr. O. R. K. Murray read extracts from the January Journal. A hearty vote of thanks given him. Authorised Person W. J. McKoy, reported all correct and showed his badge and handcuffs in good order. The Roll-call was taken. The meeting ended with the singing of the National Anthem.

Pear Tree Grove P.O. D. Aug. Ford,
Secretary.

Oxford.—Meeting 28th February. Seven members were present. The President gave a full report of the Half-Yearly General Meeting which was listened to attentively. Citrus was one of the items he spoke about. He was heartily thanked. In reply to a query as to anyone had approached Mr. A. D. Goffe on the matter of water for the Upper part of the district, the President answered in the affirmative. Authorised Person S.

Brown reported an arrest. All present had a talk about the forthcoming May Pen Show. The members are thinking of making up a party to attend the Show. Some members are planning to take some exhibits. The meeting was brought to a close by the singing of the National Anthem.

Free Hill P.O. (Mrs.) R. A. Thomas, Secretary.

Mt. Regale.—March 1st. Instructor Henderson visited the District. It rained, heavily. No meeting was held.

Mt. Regale P.O. T. H. Hannam, Secretary.

Other Reports Received.

Branch.	Date of Meeting.	Attendance.	Business.	Secretary.
St. Ann.				
Bamboo ..	23.2.35	..	Corn Competition. Report re Half-Yearly General meeting. Road. Address by Instructor Atkinson.	J. Lowe.
Portland.				
Belvedere ..	9.3.55	12	Savings Bank. Extension of Branch to include White Hall district. Address by Instructor Jones.	L. C. Blair.
Maidstone	13.3.35	16	Board for Branch. Irish potatoes. Reading by President.	M. L. Williams.
St. Elizabeth.				
Kilmarnock	12.3.55	over 200	Special Function. Sports, Refreshments. Addresses.	J. E. Monteith.
Upper Pedro Plains	1.3.55	about 200	Cassava Caterpillar. Road. Water supply. Post Office. Peanut Competition. Address by Hon. E. V. Allen.	I. S. Millard
St. James.				
Salt Spring	15.3.35	16	Cane tops. Fertilizers. Authorised Persons.	L. E. Dillon.
Trelawny.				
Ulster Spring	11.3.35	..	Water supply. Roads. Address by Instructor Thompson.	I. C. Williams.
St. Mary.				
Central St. Mary	7.3.35	15	May Pen Show: Arrangements for Annual meeting. Address by Instructor Henderson.	C. L. Williams.
Rock River	25.3.35	11	Farewell to former Secretary Budding. Authorised Persons. Address by Instructor.	H. M. Campbell
Wood Park ..	13.3.35	17	Manures. May Pen Show. Plans for increasing interest in Branch. Addresses by Messrs. Stuart and Simmonds.	C. L. A. Stuart.

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THE JOURNAL

OF THE

Jamaica Agricultural Society.

The more people do the more they can do; he who does nothing renders himself incapable of doing anything; while we are executing one work we are preparing ourselves for undertaking another.

Vol. XXXIX. MAY, 1935. **No. 5.**

BOARD OF MANAGEMENT.

The regular monthly meeting of the Board of Management of the Jamaica Agricultural Society, was held at the office of the Society, 11 North Parade, Kingston, on Wednesday the 3rd April, 1935 at 11.30 a.m. There were present: Mr. T. J. Cawley, First Vice-President in the chair, Rev. W. J. Thompson and Hon. George Seymour Seymour, Vice Presidents, Hon. A. C. Barnes, Director of Agriculture, (ex-officio) Messrs. Sidney Barton, H. E. Lewis, T. P. V. McDaniel, U. Theo. McKay, D. D. Phillips, W. H. W. Westmorland, P. W. Sangster, Major G. B. Pease, P. St. L. Bacquie, Supervisor of Instructors and the Secretary, Glaister Baxter.

Apologies for Absence:—

Apologies for absence were tendered on behalf of Messrs. W. H. Watson and T. R. Williams.

Confirmation of Minutes of the previous Meeting:—

The minutes, copy of which had been sent to each member of the Board, were taken as read, and on the motion of Mr. McKay, seconded by Mr. Phillips, were confirmed.

Matters arising out of the previous Minutes:—

(a) *Statement by Secretary* was submitted as follows:—

2nd April, 1935.

To the Board of Management:—
Gentlemen:

The attached letter was written to the Colonial Secretary with regard to the Provident Scheme.

All other correspondence consequent on the deliberations of the Board at their last meeting have been carried through.

An amount of £60 16s. 8d. entrusted to the Society by the Eastern St. Thomas Agricultural Show Fund has been lodged in the Government Savings Bank withdrawable on the signatures of the Secretary and Accountant of this Society.

(Sgd.) GLAISTER BAXTER
Secretary.

21st March, 1935.

Hon. Colonial Secretary,
Kingston.

Sir,

I have the honour to advise that your letter No. 2292/32 of date 7th March, 1935, was placed before my Board of Management at their last meeting.

2. My Board would be very much obliged if you would assist us in obtaining from some of the other Colonies an outline of the details of a Provident Scheme such as has been adopted and which was referred to in paragraph 5 of your letter, with a view of their considering such a scheme.

3. I however beg to reply to your several observations contained in your letter: Paragraph 2 defining a Provident Scheme as a lump sum available to the employee on retirement (i) having arrived at the age limit, or (ii) on the ground of ill health, or (iii) for his next of kin in the event of death at any time, is in entire agreement with the structure of the scheme submitted as far as regards (ii) and (iii). The Board however felt that they would rather their employees not have a lump sum at the retirment age, but, rather a pension as they fear their retired employees may make unsuccessful investments and loose such monies and still be in a position of penury in their old age. This, the pension aspect of the proposed fund would obviate. Replying to your paragraph 3, whilst it must be admitted that an Insurance Company can only operate at the expense of the contributor and the employer, the insurance protection to the employee in case of death during the earlier operation of the scheme would ensure a full amount of gratuity, in the scheme, £500 to the dependant.

4. My Board observes with pleasure the observations contained in your paragraph 7, but would point out that without some assurance of Government support of our funds they are without means of acquiring revenue which would enable them to guarantee the employer's contribution to a fund.

(Sgd. GLAISTER BAXTER,
Secretary.

(b) *Estimates—Letter from C.S.O.*—The Secretary read the following correspondence:—

14th March, 1935.

Hon. Colonial Secretary,
Kingston.

Sir,

I have the honour at the direction of my Board of Management to bring to your attention the results of a deputation of the Board of Management with His Excellency which waited on him at King's House on the 5th instant.

The deputation understands it was His Excellency's intention to consider increasing the subvention to the Society by £500, and that if the Society satisfies him that the reconditioning of the newly acquired building and the provision of storage space could be done for less than the additional £1,000 already proposed for the subvention, that he would have no objection to such balances as remained being made available for the operating expenditure of the Society.

My Board is anxious to know that this understanding of the matter is the correct one, and would be very much obliged to hear from you on the matter.

(Sgd.) GLAISTER BAXTER,
Secretary.

No. 7427/34. 14th March, 1935.

"With reference to the correspondence ending with your letter No. 78 dated the 2nd March, 1935, and to the interview which a Deputation from your Association had with the Governor on the 4th March, 1935, in regard to the Estimates of Revenue and Expenditure of the Jamaica Agricultural Society for tbe year 1935-36, I am directed to inform you that His Excellency is unable to approve of your Society's proposals for the appointment of an Assistant Secretary.

2. With regard to an increased grant to the Society, His Excellency is not prepared to agree to Government support for anything more than possibly a further sum of £500 if your Society can submit proposals for spending the increased grant of £1,000 on the store, and satisfy the Government that you can put this additional accommodation to the best use and save £500 in doing so, which can then be devoted to other needs of the Society."

(Sgd.) A. S. JELF,
Colonial Secretary.

The Secretary pointed out that the letter from the Colonial Secretary, dated 14th March was sent from that office before the letter bearing the same date had been received at that office. He had received the following letter in reply to his letter of the 14th March.

No.s. 7427/34. 20th March, 1935.

"I have the honour to acknowledge the receipt of your letter No. 80, dated the 14th March, 1935, in regard to the Estimates of Revenue and Expenditure of the Jamaica Agricultural Society for the year, 1935-36 and to invite reference to the letter from this office No. 7427/34 dated the 14th March, 1935."

(Sgd.) A. R. Dignum,
for Colonial Secretary.

The Secretary also read the following extract from the "Gleaner."

(Extract from Report of Legislative Council Proceedings (Gleaner) 29.3.35.)
The Agricultural Society.

Mr. Allan referred to the grant of £10,500 to the Jamaica Agricultural Society. He said this was a Society that was doing good work, but there was something in the note of explanation about the extension of the Society's premises, which he wanted to ask about. Did he understand that the Government gave no other assistance to the extension of the premises than £1,000?

The Colonial Secretary said the council last year passed a special vote of £1,200 or £1,500 to purchase these premises, and this item of £1,000 was not entirely devoted to that. The Board of Management had asked for more money, and the Government was prepared to give them some, but not all that they had asked for. He thought that the Society would probably spend about £500 in adapting the premises and put the other £500 to general purposes.

Mr. Ehrenstein said the Agricultural Society was doing very good work and every assistance that the Government could give to it should be given, especially as it was working in such harmony with Department of Agriculture. (The Colonial Secretary: "hear, hear.")

The Chairman suggested that the Board go into Committee to consider the Estimates.

The discussion which followed disclosed that the Board was of the opinion that the rehabilitation of the newly acquired premises would require the expenditure of the whole one thousand pounds.

On the suggestion of Mr. Seymour it was decided that the Board should wait until the Government had gone finally into the finances of the Colony and then approach the Governor with the request that the situation in regard to the Society be reviewed, when no doubt it would be found possible to make an additional grant to the Society.

After further discussion the Secretary was authorised to make expenditure on the basis of the previous year, paying in addition, the increments to which the Board was committed, i.e. increments to the Secretary and the Supervisor of Instructors, amounting to a sum of £10,036 net expenditure for the years operations.

During the discussion of the Estimates Major Pease left the meeting.

Letter from Hon. G. Seymour Seymour re resignation—The following letter was submitted:—

10 Duke St., Kingston.
March, 22nd, 1935.

Dear, Sir,

I beg to acknowledge your letter of 19th March, 1935 saying that the Board of Management after receiving my letter of resignation earnestly ask me to reconsider my decision, and that they considered my services so valuable to the Board that if I would continue a member, they would be satisfied with such services and attendance as I would find it convenient to give.

2. In reply I beg to state that after such an expression of opinion by the Board, which I highly appreciate, I hereby withdraw my resignation as requested, and will continue to serve as a member of the Board of Management.

Very truly yours,
(Sgd.) G. Seymour Seymour.

Mr. Westmorland and other members of the Board expressed appreciation of Mr. Seymour's reconsideration and decision in this matter and thanked him for continuing his membership.

Mr. Seymour acknowledged the expressions.

(d) *Statement from Mr. Phillips re Citrus Regulations.*—Mr. Phillips said that consequent on a resolution brought forward at the last meeting of the Board by Mr. Lewis regarding certain clauses of the new Citrus Regulations, which resolution had been ultimately withdrawn, he had prepared some suggested amendments to these regulations for the consideration of the Board. If the Board approved of them they could be forwarded to the Advisory Board under the Agricultural Produce Law.

The Chairman said that as this matter needed careful consideration and it could be more satisfactorily dealt with if the members had an opportunity of going into it at more leisure, he would propose that a Committee be appointed to deal with the suggested amendments and report to the Board.

This was agreed to and the following Committee was named:—Mr McKay, Chairman, Messrs. Phillips, McDaniel, Lewis and Williams three to form a quorum.

The Secretary was directed to send copies of the proposed amendments to each member of the Board.

(e) *Instructor Kelly's Transfer Expenses.*—The Secretary stated that at the last meeting of the Board when a deputation of Instructors was received the matter of transfer expenses had been brought up and the case of Instructor Kelly was cited as an instance of unsatisfactory settlement of transfer expenses. He had since gone through the correspondence and found that Mr. Kelly had eventually requested that the part of the claim that was disallowed be withdrawn.

It was decided that in that case it was unnecessary to go further into the matter.

Panama Disease of Bananas—One Root System:—

Mr. McKay proposed the adjournment of the meeting to bring forward the matter of the pronouncement of the Director of Agriculture in the Legislative Council, that he was about to advise Government to adopt the one root system of treating Panama Disease of bananas. He congratulated the Director on this step, and said that the Board of Management representing the agricultural interest of the Colony should stand by the Director in this matter.

The Director of Agriculture thanked Mr. McKay for his remarks and spoke on the subject, after which Mr. McKay withdrew his motion for the adjournment of the meeting.

The Board then adjourned for luncheon.

On the resumption there were present: Mr. Cawley, in the chair Messrs. Lewis, McDaniel, McKay and Sangster, the Supervisor of Instructors and the Secretary.

The Chairman stated that he had received a letter from Major Pease regretting his inability to return to the meeting on account of indisposition.

Statement of Accounts:—

(a) *Statement for February.*—The Secretary stated that this appeared in the minutes.

(a) *Statement for March* was submitted as follows:—

Statement of Accounts for March, 1935

Receipts.	Estimates. £	s.	d.	Total. £	s.
To Subscriptions	£175	0	0	£157	2
Affiliation and Journal Fees	175	0	0	173	4
Advertisements in the Journal	200	0	0	288	1
Bank Interest and Sundries	10	0	0	20	11
Miscellaneous	10	0	0	7	1
Bee Industry Sales	30	0	0	29	9
Sales Dept. Profits 1934-35	400	0	0		
Government Grant	9,500	0	0	9,500	
Grant for Beekeeping Industry	500	0	0	500	0
Appropriation from Sales Dept. Surplus	516	15	0		
	£11,516	15	0	£10,675	9
Balance from 31st March, 1934				1,877	4
Nethersole Presentation Fund				0	2
Refunds of Advances				461	19
Hire of Show Equipment				9	14
Shows A/c Deposits etc.				33	2
Seeds Trading Account				4,418	12
				£17,476	5
Less Expenditure—(per contra)				£16,694	18
Balance				£781	7
Cash in hand (since lodged	117	3	2		
Cash at Barclay's Bank (D.C. & O.) Current A/c	317	9	11		
Cash at Royal Bank of Canada Current A/c	346	14	6	781	7

Expenditure.	Estimates. £	s.	d.	Total. £	s.
By Personal Emoluments:—					
Secretary and Office Staff	2,014	5	0	2,075	7
Instructors and Supervisor	7,482	10	0	7,506	2
Instructors' Course at Hope	125	0	0	127	18
Instructors' Tools and Contingencies	100	0	0	105	13
Secretary's, Office, and Special travelling	100	0	0	99	5
Printing and Stationery	100	0	0	116	19
Printing and issuing Journals and Reports	750	0	0	807	19
Rent and Rates	58	0	0	57	18
Rent of Telephones	27	0	0	26	10
Office Furniture Repairs	15	0	0	11	7
Postages and Telegrams	10	0	0	9	14
Incidentals	50	0	0	61	9
Auditors' Fees	25	0	0	25	0
Library Books	10	0	0	10	8
Experiments and Livestock Subsidies	190	0	0	63	6
Show Equipment, Repairs	10	0	0	9	12
	£10,976	15	0	£11,114	14
Bee-keeping Industry	500	0	0	545	6
New Office Equipment	40	0	0	61	17
	£11,516	15	C		
Shows A/c: Printing				32	3
Gratuity: Mrs. Barclay				50	0
Advances to Instructors (Contra)				461	19
Nethersole Presentation Fund				9	0
Holdings Improvements Competitions				194	1
Local Competitions				10	15
Plant Disease Control				28	9
Storm Relief A/c Refund to Government				106	0
Seeds Trading Account				4,080	10
				£16,794	18

(Sgd.) Glaister Baxter,
Secretary and Treasurer.

(Sgd.) Donald MacDonald, Accountant.

Questions:—

Mr. McKay handed in the following:—

1. Is the recommendation of the Planning Committee as to the putting of instructions on packets of seeds regarding methods of planting being carried out?

2. Will this Society take the necessary steps to investigate and report to the Board of Management at its June meeting at latest the cause of the drop in the export of coffee for 1934.

3. Will the Socety get figures if possible showing the amount of rice produced locally during the year 1934, and further see these figures are procured yearly.

4. Can the Society make enquiries concerning the prices paid to members of the Citrus organization?

Communications:—

(a) *Letter from West India Committee re Their Majesties' Silver Jubilee.*—The Secretary presented the following letter:—

The West India Committee,
14 Trinity Square. London, E.C.1.
March 7th, 1935.

"The Executive Committee feel that it will be the desire of the Members of the West India Committee, as the oldest Colonial Body in the Empire, to show in a tangible manner their sentiments of loyal affection to The King and Queen on the occasion of the Silver Jubilee.

They therefore invite contributions to be applied towards the purchase of a suitable gift for presentation to Their Majesties with an Address bearing the names of the contributors.

The Executive Committee have ascertained that Their Majesties would be graciously pleased to accept a small personal gift, and if you desire to associate yourself with it we shall be glad if you will let us have your contribution (which should not exceed £1) at your earliest convenience in view of the rapidly approaching date of the Celebrations.

((Sgd.) E. A. DePass,
Chairman.
(Sgd.) *Algernon Aspinall*,
Secretary.

On the motion of Mr. Barton seconded by the Chairman it was decided that a contribution of One Pound be forwarded.

Messrs. Thompson and Sangster came in.

Reports from Committees.:—

On the suggestion of the Chairman the report of the Bee Industry Committee was taken as follows:—

3rd April, 1935.

To the Board of Management:—

Gentlemen,

Your Bee Industry Committe sat this morning and after discussion of their Agenda, they decided that the matter relative to the Bee Instructor's dismissal and legal correspondence ensuing be referred to the Board for their action with the recommendation that consideration be given to these matters *en camera*.

We are, gentlemen,
(Sgd.) P. W. Sangster, Chairman.
G. Seymour Seymour.
A. C. Barnes,
Glaister Baxter, Secretary.

On the motion of the Chairman, seconded by Mr. McDaniel the Board adopted the report and proceeded to consider the matters referred to them *en camera*.

Mr. Seymour joined the meeting during the *en camera* discussion.

Messrs. Thompson, McKay and Phillips, retired from the meeting after the discussion.

It was decided at 4.00 p.m. that the matters that needed immediate attention should be dealt with and the remainder of the agenda deferred to a later meeting of the Board. The following items on the agenda were considered.

New Members:—

On the motion of Mr. Seymour seconded by Mr. Sangster, the following were unanimously elected to membership of the Society:—

Wm. W. Overholt, Director, Agricultural Department, Yemping, Fukien, China.

Arnold L. Neita, Bonny Rigg, May Pen.

William Goodyer, C/o Ja. Telephone Co., Duke Street, Kingston.

Rev. E. Armon Jones, Liguanea.

J. H. L. Dodd, Cross Keys.

J. A. Halliburton, Port Morant.

A. I. Bryan, Whitehorses.

Report from Live Stock Committee:—

The Secretary stated that the report from the Live Stock Committee had been submitted to the previous meeting of the Board and recommitted to the Committee for separate recommendations on the Beef and on the Butter Sections of the Industry. The Committee had therefore divided the report into two sections which were now before the Board. The Committee had added suggested amendments to the report regarding the Dairy section of the Industry, and it was optional to the Board to adopt or reject the original report or the report with the amendments.

The following report of the Live Stock Committee was then read by the Secretary.—

3rd April, 1935.

Gentlemen,

Your Live Stock Committee sat this morning and considered your request for the division of their report previously submitted on the Beef and Dairy Industries.

The Report is herewith divided and we further recommend that paragraphs (d) and (e) of the *Dairy Report be deleted* and *the following paragraph be substituted therefor:*

"That in the opinion of the Committee if Government help is necessary for the improvement of the Dairy Industry it be done by way of a subsidy rather than by increasing the tariff."

(Sgd.) GLAISTER BAXTER,
Secretary of the Committee.

BEEF INDUSTRY.

Hon. A. C. Barnes, 4th December, 1934.
Chairman, Government Committee on Cattle and Dairy Industries, Kingston.

Sir,

In response to your invitation to submit our recommendations with regard to the improvement of the cattle and dairy industries of the Colony, we have pleasure in doing so.

2. Representatives of this Society will be very glad to attend on you at your convenience if you consider that this would be of any assistance in the matter.

3. We find that the beef industry cannot be assisted by protective tariff against the importations of competing oversea products for the following reasons:—

(a) That the present importations of overseas meats are negligible and are marketed at higher prices than what would be considered profitable for our local products.

(b) With reference to protection against salt beef and other preserved meat products, we find that as the portion of the carcass used for producing salt beef is a relatively small portion of the whole that it is not likely that sufficient salt beef could be made in Jamaica for the present demand, and further, that the price realizable, allowing for processing is less than is now being realized, allowing similar cuts of fresh meat in the markets and which cuts are now readily saleable.

(c) We find on enquiry from reliable sources that the cost of production of beef in Jamaica is between 30/- and 35/- per 100 lbs., and that when the retail sale price averages less than 6d. per lb. it is unprofitable to the breeder.

(d) We find that the slaughtering and charges on animals between breeding pens and markets are extraordinarily high, being approximately—

Slaughtering	20/- per head
Transportation	5/- " "
Sales Expenses, Butcher's Services ..	25/- " "
Total	£2 10/- per head.

We recommend that careful enquiry be made into the possibilities of the reduction of Slaughter House Fees and Railway transportation charges, with a view to making this portion of the breeder's and butcher's expenses less than it is at present. It has been stated on reliable authority that the Railway profits on a car load of cattle appear to be more than that obtained from a Third Class passenger car.

(e) We also recommend that the Government be advised not to accept tenders for beef at prices lower than the established cost of production, as thereby butchers are encouraged to artificially depress the price of cattle to the breeder.

(f) We recoommend some system for the licensing and registration of butchers, whereby they will be called upon to keep records of their killings, and that some system of control be established as to the quality of the animals to be butchered.

(g) We recommend that abattoirs be established in each parish adjoining the principal markets and that the sales in such markets must be from stock slaughtered in these abattoirs and that inspection for condition and disease be established in connection with these abattoirs. The modifications of such abattoirs for country places and breeding pens in the nature of killing sheds properly sheltered and drained and available for Government sanitary inspection and control be permitted. That in case of accidents some exception be made to the regulation, but reports should be made in such cases to the Police Station. That the transportation of meat be made in appropriate vehicles.

DAIRY INDUSTRY.

4. Our Committee feels that adequate assistance to the Dairy Industry is likely to be the most efficient form of assistance to the beef industry, as this would afford opportunity to breeders to control the volume of beef production within the limits of the purchasing power of the community.

(a) We also feel that it is quite possible and practicable to produce a milch cow in Jamaica with an average of between 3,000 and 4,000 lbs. of milk per annum, which cow would be an efficient producer of butter and be able to compete with New Zealand imported butter even at the present depressed prices.

(b) We are however of the opinion that the percentage of such animals now existing in the Colony is insufficient for producing the Island's requirements of butter and so the industry is unable to compete at the present moment with imported butter.

(c) We strongly recommend that the dairy industry be materially assisted thereby giving an opportunity to achieve the standard of efficiency which will enable us to produce the Island's requirements of butter eventually at competivive prices.

(d) We consider that a minimum period of six years is required for dairy cattle breeders to produce animals approximating the required efficiency.

(e) We recommend that certain safeguards be adopted by the Government to produce from any assistance given to the industry the desired results. The safeguard we suggest is organization on the part of dairymen to enable the establishment of central creameries which will be provided with the minimum amount of milk necessary for the economical production of butter, such creameries would best be operated on the co-operative principle. We consider the minimum amount of milk per day for economical production to be in the region of one thousand quarts. That inspection of dairies and their approval and also approval of dairy sires in use by assisted concerns be made by Government Officers and be a part of the safeguards placed on such butter manufacturing concerns above referred to.

5. We recommend the following as means of assistance to the dairy industry:—

(a) Credit if necessary up to 50% of the cost and erection of manufacturing plant of approved type and approved location. Such approval to be obtained from the Director of Agriculture and the organization also to be approved by him.

(b) Temporary subsidy for a period of six years to allow of the necessary time for the industry to arrive at the required standard of efficiency which would allow it to compete with world prices on its own merits.

(c) Government provision of high-class proven dairy sires on a loaning plan for rapid improvement of dairy cattle.

(d) That a subsidy rather than tariff protection, be given, due to the fact that the butter consumers of this country represent only about 10% of the population, a great number of which are of the smaller salaried classes which at the present moment are unable to bear any increased imposts of taxation.

(e) We suggest as barely adequate, the following subsidy:—

For the first three years 6d. per lb. on all butter marketed by approved butter-making factories.

The next two years 4d. per lb.

The next succeeding two years 2d. per lb.

After this period no subsidy.

(f) That a quota system be adopted whereby the importation of butter may be controlled to ensure against dumping in our local market.

(g) We recommend also as a means of further assistance to the cattle industry and also to other livestock industries that free entry of all implements, equipments, feeds not produced in the Island besides such as animal compound and mill by-products of high protein contents, be admitted duty free.

6. We draw the attention of your Committee to a few salient facts in connection with the live stock industry of Jamaica which we deem of importance as proving the value of the industry to the Colony and its worthiness for assistance.

(a) The industry in Jamaica produces approximately £400,000 per annum and if placed in a position to take care of the butter and condensed milk requirements of the Colony would be worth three-quarter million pounds per annum.

(b) The dairy industry seems to us at the present moment to be of even greater importance than its actual money worth to the country due to the fact that its expansion and prosperity would react most favourably on the present depressed beef situation and also be a stepping stone for encouraging the cheap and efficient production of milk without which there is no possibility of providing for the condensed milk needs of the Colony, which market is worth a quarter million pounds per annum.

We are, Sir,
Yours faithfully,

(Sgd.) T. J. CAWLEY
" H. E. LEWIS
" SIDNEY BARTON
" W. HARPER WATSON
" T. R. WILLIAMS
" G. SEYMOUR SEYMOUR
} Members of Jamaica Agricultural Society Live Stock Committee.
" GLAISTER BAXTER,
Secretary of the Committee.

Mr. Seymour pointed out that if the word "if" as suggested in the amendment was allowed to go forward in the report it would not reflect the opinion of the Board that help was necessary to the industry, and suggested that the amendments suggested by the Live Stock Committee be not adopted.

The Secretary then stated that if these amendments were not adopted it would be just as well to adopt the report as it had originally been submitted.

Mr. Seymour moved that the report of the Live Stock Committee dated 4th December, 1934, dealing with the Beef section of the Beef and Dairy Industry be adopted.

This was seconded by Mr. Lewis and adopted.

Mr. Seymour moved that the report of the Live Stock Committee dated 4th December, 1934, dealing with the Dairy section of the Beef and Dairy Industry be adopted.

This was seconded by Mr. Lewis and carried.

Report from Instructors Committee.:—

The Secretary presented the following:—

3rd April, 1935.

Gentlemen,

Your Instructors' Committee met this morning and make the following recommendations:—

1. That Instructor Darby's leave scheduled for May be deferred until June to enable him to give his attention to the export tomato venture in the parish of Manchester.
2. That Instructor Robotham be granted one month's leave of absence during May.
3. That the following applications for affiliation be granted:—

Brae Head	(Clarendon).
Collington	"
Claremont	(St. Ann).

(Sgd.) GLAISTER BAXTER,
Secretary of the Committee.

On the motion of the Chairman seconded by Mr. Sangster the report was adopted.

Office:—

(a) *Secretary's Report on Travelling in March.*—The Secretary reported on the travelling done by him during March.

This was noted.

Diseases of Plants and Animals: Insects Pests.:—

(a) *Panama Disease of Bananas—Report for February.*—The Secretary submitted the report for the month of February on the incidence of Panama Disease of bananas, and stated that copies had been forwarded to all the members of the Board.

The report was tabled.

Competitions:—

(a) *Peaunt Competition—Report from Instructor Lynch and Supervisor Bacquie.*—The Secretary read the report of the judges on the Peanut Competition recently carried out in St. Elizabeth, prizes for which had been offered by Mr. P. W. Sangster.

The Secretary stated that despite a number of setbacks which were encountered, the yield of peanuts was very satisfactory, and it was proven that the crop could be grown to great advantage.

Mr. Sangster asked if it were the opinion of the Supervisor and the Instructor that the industry would be taken up.

Mr. Bacquie stated that arrangements were being made for plantings to be carried out during the Spring.

Mr. Seymour suggested that efforts should be made to interest the larger properietors to take up the crop.

Mr. Bacquie stated that this was already being done and he knew of one planter who was arranging for importations of the recommended variety of seed for early planting.

The Secretary was directed to publish the report in the Journal.

The meeting then adjourned to Wednesday, the 17th April, 1935 at 11.30 a.m.

An adjourned meeting of the Board of Management of the Jamaica Agricultural Society was held at the office of the Society, 11 North Parade, Kingston, on Wednesday the 17th April, 1935 at 11.30 a.m. There were present: Rev. W. J. Thompson Second Vice-President, presiding, Messrs. H. E. Lewis, T. P. V. McDaniel, U. Theo. McKay, D. D. Phillips, S. M. Walker, W. Harper Watson and Glaister Baxter, Secretary. Hon. A. C. Barnes, Director of Agriculture (*ex officio*) attended shortly after the meeting began.

Apologies for Absence.—

Apologies for absence were submitted on behalf of Major Pease, Mr. Sangster and Mr. Bacquie, Supervisor of Instructors who was ill.

The Secretary was instructed to convey the sympathy of the Board to Mr. Bacquie regarding his illness.

The Chairman stated that he had been informed that the First Vice-President, Mr. T. J. Cawley was ill.

It was unanimously agreed that the sympathy of the Board be conveyed to Mr. Cawley and also the earnest hope that he would shortly be restored to health.

atters left over from last Meeting.—

(a) *Reports from Committees.* (i) *Banana Insurance.*—The Secretary ad the following report:—

2nd April, 1935.

embers of the Board of Management:

Gentlemen,—Your Committee appointed to consider the Banana Restoration Report the Select Committee of the Legislative Council met on Tuesday, 2nd of April and did

They were not unanimous in their opinions on the matter. Two suggestions were nsidered by the Committee and they feel that they should leave the choice of accepting e of them to the discretion of the Board. The suggestions appear hereunder:

Suggestion 1.—Banana growers to be forced by law to create a fund by a cess of 2d. · payable to the extent of £500,000. Should there be a calamity before this amount reached the Government should guarantee the amount required for restoration limited a sum not exceeding £5 per acre, an acre the equivalent to the production of 120 ints. After the fund of £500,000 is reached the cess should still continue but any ount over and above £500,000 to be refunded to the first year contributors to the fund, d so on from year to year. Such refunds to be pro rata to the individual contributions growers.

Suggestion 2.—An agreement in general with the report of the Select Committee of Banana Industry dated 12th November, 1934, except in so far as the recommendations payment to growers whose fields may be damaged by storms and other calamities. portion of the contribution of growers, say 75 per cent. should be given back to them the purpose of resuscitating their fields and a sum should be guaranteed by Government from which loans should be made on proper security to provide the growers with ufficient sum for the restoration of their fields at the rate of £5 per acre.

(Sgd.) GLAISTER BAXTER,
Secretary of the Committee.

The Secretary stated that there was a letter from Mr. J. B. Kilburn the Confederated Life Association of Canada regarding a Banana ovident Fund which no doubt the Board would consider in connection with the report of the Committee.

On the suggestion of Mr. McKay it was agreed that the matters left er from the last regular meeting of the Board be dealt with and if ere was then enough time, both the report from the Committee and e letter from Mr. Kilburn be considered.

(ii) *Travellers' Licenses—Agricultural Produce Law.*—The Secretary ad the following report:—

2nd April, 1935.

the Board of Management:

Gentlemen,—Your Committee appointed to further consider the Inspector General's er dated the 4th October, covering his suggestion for the licensing of vehicles for ring agricultural produce met on the 2nd April and considered the subject.

Your Committee recommend that the suggestion be not adopted, as in their opinion ppears unworkable and may lead to much hardship.

(Sgd.) GLAISTER BAXTER,
Secretary of the Committee.

On the motion of the Chairman seconded by Mr. McDaniel the port was adopted.

(b) *Branches, Resolutions.* (i) *St. George re Crown Lands.*—Resolution s submitted from the St. George (Portland) Branch asking that the vernment be approached to advertise Crown Lands either for sale for tenancy, setting out conditions by which the lands may be posed of.

The Secretary was directed to forward same to the Colonial Secretary.

(ii) *Lawrence Tavern re purchase of Bananas through runners.*—This olution requested that the present system of purchasing bananas rough runners should be discontinued as it encourages stealing to a eat extent.

After discussion it was agreed on the suggestion of the Secretary at the Advisory Board under the Agricultural Produce Law and

representatives of the Police Department be requested to meet w members of the Board of Management of this Society in conference go into this matter which was engaging the attention of all th departments separately.

(c) *Other Business.* (*i*) *Letter from Major Pease re membership Committees and Leave.*—The following letter from Major Pease v presented:—

Round Hill, Hopewell P.O.
March 26, 1935.

"In consequence of the distance from Kingston at which I live, I find it quite impossi to attend any meetings except the Board meeting, and I must therefore ask you to pl my resignation from the Committees of the Bee Industry and Show, before the Bo at the next meeting.

If it is considered necessary for members of the Board who live far from Kingston be members of these various Committees I can only suggest that it be made a rule tl these Committee meetings be held in the afternoon (say after 4 p.m.) of the day previ to the Board meeting. Those members then who came from far in the country co easily attend them without inconvenience.

I shall be glad also if you will place my application for leave for 4 months as fr May 8th before the Board.

(Sgd.) G. B. PEASE.

A short discussion followed and disclosed that the majority of t members would not be in favour of Committee meetings being he after 4 p.m. on the day previous to the Board meetings.

The Secretary was directed to inform Major Pease that the Boa would be satisfied with whatever service he found it posssible to gi as a member of the Bee Industry and Show Committees.

The leave applied for was granted.

(*ii*) *Letter from Main Ridge Branch re Mr. Seymour's resignation.*- Resolution from the Main Ridge Branch was submitted regretting tl resignation of the Hon. George Seymour Seymour, O.B.E., as a memb of the Board and urging that in view of the invaluable services rendere by Mr. Seymour to the cause of agriculture, he be requested t reconsider his resignation.

The Secretary was instructed to inform the Branch that the matt had already been taken up with Mr. Seymour who had withdrawn h resignation, and to forward a copy of the resolution to Mr. Seymou

(*iii*) *Letter from Stony Hill Branch re deputation on Tobacco Industr* —Letter from the Stony Hill Branch was presented requesting th Board to receive a deputation from the Branch on the subject of th Tobacco Industry, and asking that the Director of Agriculture b specially asked to be present. A memorandum which the Branc proposed to present to the Director of Agriculture through the Boar of Management was also submitted.

After some discussion, on the motion of the Chairman seconde by Mr. McDaniel, the Board agreed to receive the deputation a 11.15 a.m. on Wednesday the 1st May.

The Secretary was directed to forward copies of the memorandum to the members of the Board.

(*iv*) *Irrigation of Small Holders' Lands in the districts of Heartsease etc.* (*St. Thomas*).—The Secretary read correspondence between the Clerk of the Parochial Board of St. Thomas and Instructor McLaren setting out the position of small holders in the Heartsease and adjoining districts who depended on irrigation water from the Yallahs river for the successful cultivation of crops.

Since 1933 much land had been washed away through abnormal conditions of the river and consequently there were some 50 to 60 acres

f arable lands situated so that the water could not be led to them rithout the assistance of the United Fruit Company which held the ey to the situation in their irrigation system.

The feeling of the Board was that this was a matter for the Parochial Board to take up with the Government, but the Board conceded hat the Senior Vice-President and the Secretary should interview the Manager of the United Fruit Company to see what could be done in the matter. The Secretary to report the result of the interview to the Board.

(*v*) *Resolution from Nain Branch re Corn Industry.*—Resolution from he Nain Branch was submitted requesting that the Government be equested to take care of the curing and storing of surplus corn proluced in St. Elizabeth and to make advances for each bushel of corn elivered at the curing centres.

After discussion the matter was referred to the Committee dealing vith the whole question of the curing and storing of grain throughout he Island.

(*vi*) *Resolution from Tranquility Branch re Post Office.*—Resolution rom the Tranquilty Branch was submitted asking that the Government be requested to establish a Post Office at Tranquility.

The Secretary was directed to forward the resolution to the Postmaster for Jamaica.

(*vii*) *Invitation from Balcarres Branch for Secretary to attend Annual Meeting* 24.4.35.—The Secretary stated that he had received a letter rom the Balcarres Branch requesting that he attend their annual meeting fixed for the 24th April.

The Secretary was authorised to attend if he could so arrange.

(*viii*) *Invitation from Hanover Branches Associated for Secretary to attend Half-Yearly meeting* 1.6.34. —Letter from the Hanover Branches Associated was submitted requesting that the Secretary attend their Half-Yearly meeting on the 1st June.

This was left in the hands of the Secretary to arrange, if possible.

(*ix*) *Further letter from Rose Hall Branch re Annual Meeting*—The Secretary stated that he had been in correspondence with the Rose Hall Branch regarding their annual meeting on the 26th April, and vith the permission of the Board he would endeavour to attend.

The Board agreed.

The Director of Agriculture obtained permission to move the suspension of the standing orders and moved that a clock be purchased nd installed in the room in which the Board holds its meetings.

This was seconded by Mr. McKay and unanimously carried.

Communications.—

(a) *Letter from President, Westmoreland Branches Associated re Instructor Kelly and meeting of Associated Branches.*—The Secretary asked that this matter be deferred as the correspondence had been forwarded to Supervisor Bacquie for investigation, and due to his llness he had not been able to attend and bring the correspondence vith him that morning as had been arranged.

The Board acquiesced.

New Members.—

On the motiron of Mr. Phillips seconded by Mr. McKay the following vere elected to membership of the Society:—

I. V. Reid, 20 Bray Street, Browns Town, Kingston.

E. C. Phillips, P. O. Box 86, Kingston.

Mrs. R. D. Streadwick, St. Ann's Bay.
S. L. DuMont, c/o B. & J. B. Machado & Co., Park Lodge, Kingston.
B. C. Burke, Norwich, Port Antonio.

Other Business.—

(a) *Services of Mr. Miller and Department of Agriculture.*—The Secretary read the following memorandum a copy of which he stated had been forwarded to each member of the Board.

April 11th, 1935

To the Members of the Board of Management and the Instructors Committee:

Gentlemen,

Yesterday the Director of Agriculture advised me verbally that he finds himself forced to take back Mr. H. C. Miller—now seconded to us as an Agricultural Instructor—due to additional Agricultural projects in his Department that will be undertaken during the course of this year.

The Director advises that if we are willing to have Mr. Wilmot, the Inspector of Plant Diseases in the Buff Bay District of Portland to undertake the Instructoral work there, he will be glad to acquiesce to his doing so.

You will recall that the parish of St. Andrew was specially divided leaving Instructor Hanson the area from near New Castle back to Glengoffe and bound ng on the Liguanea Plain, whilst the eastern portion of the hill district to the portion around Mavis Bank and on to the St. Thomas border, along with the Liguanea Plain, was made into one district of which Mr. Miller was put in charge. In my opinion it would be quite unwise to amalgamate this area again under one Instructor as it is nearly impossible for him to overtake the work in the manner which the Board has aimed at.

I, therefore, offer the following suggestions for your consideration: That the Director's offer with reference to Mr. Wilmot be accepted and that Mr. Wilmot undertake the Instructoral duties in the area now covered by Mr. Jones; that Mr. Jones be appointed to the Instructoral District of Eastern St. Mary, now covered by Mr. Henderson, and that Mr. Henderson be appointed to the vacant district in St. Andrew which will be vacated by Mr. Miller.

I must also draw to your attention the fact that now that it has been definitely settled that there can be no Assistant Secretary in the near future and in view of the fact that due to the nature of Mr. McEwen's work I am unable to expect him to undertake any amount of the routine work of the office, and also that it is probable that his whole time service might be required by the Department of Agriculture, which probability has been mentioned by the Director of Agriculture, I cannot honestly undertake the work of Supervisor of Instructors for the Eastern Districts as I feel that it would react adversely on the efficiency of these duties as well as that of my substantive duties as Secretary and Treasurer and Editor of the Journal.

There is on the estimates an item of £100 travelling for the Eastern Supervisor and I suggest that Mr. Bacquie be asked to undertake the duties of Supervisor of the Island and that some or all this amount be given to him as special travelling allowance to reimburse him for the cost of the additonal travelling which he would undoubtedly have to undertake.

While on the subject of the difficulties caused to the Board by inadequate subvention and the removal of officers of the Department of Agriculture seconded to assist in the services for which the Board is responsible, I beg to suggest that the Board consider the advisability of getting a definite pronouncement from Government as to what the Government considers an adequate subvention for the services that the Society renders the Country on behalf of the Government, so that the Society can plan for a fixed establishment and other sundry services to agriculture within the limits of such a sum.

The Society has for some years been spending larger sums annually than the Government Subvention it receives, the difference being provided from our reserves. The current financial year is possibly the last that the supplementing of the Government Subvention from our reserves will be possible hence my suggestion in the preceding paragraph.

This communication will be placed on the Agenda of the Special Meeting of the Board to be held on the 17th inst., and is sent ahead to enable members of the Board to consider the matter prior to discussion.

Yours very truly,
GLAISTER BAXTER,
Secretary.

The Secretary stated that he had received the following letter from Mr. Sangster in connection with the memorandum:—

Giddy Hall P.O.,
15.4.35.

To the Board of Management:

I wish to make the following comments on the Secretary's memorandum of 11th April relative to Mr. Miller's return to Hope and particularly to two paragraphs on page 2, beginning as follows (1) While on the subject of the difficulties, etc. and (2) the Society has for years, etc.

There was a time when the Society had a reserve which could be and was used for special and extraordinary improvements. If the Society was allowed to retain their reserve we could from time to time make special improvements. We might even have been able to make the necessary alterations and fixtures to the newly acquired building. Sir Edward Stubbs however insisted, with the approval of an unofficial element who was out to destroy the Society, that this surplus should be exhausted. I have always contended that this policy was unsound, insane, and sinister, and it is time the Board have the position made clear by Government.

Either the Society is a useful organization doing valuable work for the country or it is not. If it is it should be treated in a proper manner by Government. If it is not then let Government suggest that it be scrapped.

I am, etc.,
(Sgd.) P. W. Sangster.

Mr. Walker spoke against the suggested transfer of Instructor Henderson pointing out the value he was to his district, and on the motion of Mr. McKay seconded by Mr. Walker it was decided that Mr. Jones be transferred to the St. Andrew area to fill the vacancy created by the removal of Mr. Miller and that the Director of Agriculture's offer of Mr. Wilmot's services be accepted and the Director thanked.

The section of the memorandum dealing with the subject of annual grants to the Society from the Government was next dealt with and after discussion on the motion of Mr. McKay seconded by Mr. Walker it was decided that a delegation consisting of Messrs. Thompson, Walker, McDaniel, McKay, Sangster and Watson meet the Elected Members Association and put the case of the Agricultural Society before them.

The Director of Agriculture moved that Mr. Bacquie be appointed Supervisor of Instructors for the whole Island and that he be granted £84 of the £100 provided in the estimates for the extra travelling he would have to undertake.

This was seconded by Mr. McDaniel.

Mr. McKay moved as an amendment that Mr. Bacquie be appointed to "act" as Supervisor.

The Director of Agriculture said he was quite agreeable to the amendment which was unanimously carried.

(c) *Letter from Mr. J. B. Kilburn re Banana Industry and Provident Fund.*—The Director of Agriculture stated that this matter was under the notice of the Government.

It was decided that the subject be considered at the next meeting of the Board.

Invitation from Mt. Angus Branch for Secretary to attend Annual meeting.—Letter from Mt. Angus Branch requesting the Secretary to attend their annual meeting on the 1st May was presented.

The Secretary stated that owing to the meeting of the Board being fixed for the same date it was not possible for him to attend.

Invitation from Richmond Park Branch for Secretary to attend Annual meeting.—Letter from the Richmond Park Branch was presented inviting the Secretary to be present at their annual meeting arranged for the 25th April.

The Board was agreeable to the Secretary attending if it could be suitably arranged.

The rest of the agenda was deferred to the next meeting.

The Board then adjourned to Wednesday 1st May, 1935, at 11.15 a.m.

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The Secreta
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EDITORIAL COMMENTS.

We have pleasure in publishing elsewhere in this issue of the Journal a very thoughtful letter written by Mr. J. G. M. Robertson, a well known planter and penkeeper on the Northside, to the Chairman of the Jamaica Imperial Association and which letter subsequently appeared in the Daily Gleaner of September 7th.

Mr. Robertson has made quite a comprehensive review of the agricultural situation as it exists in Jamaica at the present time and has pointed out many of the weaknesses of the situation and some of its needs.

His first paragraph states a really important thing, and that is, some united campaign on behalf of agriculture being highly necessary.

We have time and again referred to the need of agricultural planning which need covers all the subsidiary necessities in connection with agriculture. We are very glad, however, to see some promising signs on the horizon and hope they will develop, and the object of this article is to point out to the agriculturists of the Colony that they must unite together to see that these signs be developed into practical things.

We would before discussing in detail the signs spoken of, draw attention to what was said on this subject in a few of our Editorial Comments in past issues of our Journal.

Discussing the question in February, 1934, as to whether it was wise to encourage emigration of our labour for the development of British Honduras, we wrote as follows:—

> "We want to learn to provide for ourselves the facilities for an Island agricultural development which will be adequate for the support of our increasing population on a reasonably good standard of living.
>
> We possess many nuclei of organizations which could and should contribute to such a development. Our Land Board, Agricultural Loan Societies Board, The Department of Science and Agriculture, The Education Department and last but by no means least this Society, are all embryos of what should develop into strong, vigorous, efficient and adequately staffed and financed Development Organizations.
>
> The fact is, should our population have to develop other lands for their livelihood, it will be our own fault, our loss and some other countries' gain. It will be entirely due to our lack of vision and an inability to make good use of the many valuable natural assets with which we are blest, not the least being a hard working law-abiding population, and a fertile soil."

In our March issue we said:—

> "We should like our public to keep in mind that agricultural expansion is the prime need of the Country and no class of our public whether financier, merchant or planter, can afford to stay out with the feeling that agricultural expansion is not his special care.
>
> The cost of a new road or a new school building or hospital improvements or increased expenditure on health services, means additional annual recurrent expenditure, which can only be balanced by more crops and more income. It seems to us wiser because it is perfectly practicable and possible that measures for encouraging the production of more crops and so more income, should precede everything else. By this we would create revenue surpluses and

with revenue surpluses it is never hard to provide for communal improvements."

As far back as October, 1933, we mentioned:—

We have been hearing much with regard to the development of the country. The popular interpretation of the phrase is, however more in relation to new roads, public buildings, hospitals, bridges etc., all very necessary and commendable in themselves, but unless accompanied by proportionate development of agriculture and its resulting income, will produce an unbalanced development likely at some later date, to press severely on our population who without any expansion of their income, would find their public liabilities increased and their individual financial position worsened. *Our particular sphere is to emphasise how necessary it is that agricultural development should be planned to keep pace with every expansion in public expenditure."*

Which is the same thing in other words.

We notice that the Hon. Mr. J. A. G. Smith and the then Hon. Mr. T. J. Cawley, addressing the Legislative Council on the 11th April, stressed the same point and we repeat Mr. Smith's words here:—

"My view is that we do not merely need works of convenience and improvement, but works of reproduction and development, unless we have that we will never increase the capacity of the people as a whole to earn money and so be in a position to pay their taxes."

In our January Issue for 1935, we stressed the necessity for agricultural planning in face of the urgent need of the Colony to maintain and if possible increase its agricultural income.

We noticed with pleasure in an Editorial appearing in the Daily Gleaner of April 18th, that a strong note of warning was sounded as to the care that was necessary in increasing our commitments for taxation, in view of the fact that the prospects of our National Income was far from reassuring.

A portion of the Editorial was so much to the point that we reproduce it:—

"Our Revenue is not to-day what it was on the average between the years 1927 and 1931, inclusive, and the value of our trade most decidely is not. If anyone doubts this, let him look up the official figures: they will stare him in the face. It is at least doubtful if those former values will obtain again for quite a long while: there will be improvement, but hardly to the old figures. We do not think it wise to be dogmatic on such questions, however; we cannot speak for the distant future. But the future of the next few years decidedly gives no indication of a revival of the conditions prevailing in the quinquennium we have mentioned; and in the next decade we shall witness a marked change in the position of our banana industry.

These are facts to bear in mind, though we can hardly believe that they will be. If they are, prudence and statesmanship would recommend that we should not indulge in grandiose parochial schemes of a non-productive nature which must mean, even immediately, the increase of the rates with no corresponding increase of the revenue of individuals. Nor should we pile up our recurrent annual expenditure in the hope that, somehow, everything will come right. We have been fairly, not timidly, cautious up to now; it will be well if we continue to be so. And we have made considerable material progress in spite of all the denigrators. But

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KINGSTON, JAMAICA, B.W.I.

this is not a country of "wonderful resources:" it is in reality a country of but few profitable resources, and one of these is steadily dying. We should think of this sometimes. But shall we? That is gravely to be doubted."

This is one of the pleasant signs that we have mentioned above. Another is of course, Mr. Robertson's letter that appears elsewhere in this issue. The third which we wish the best of luck is the Resolution of the Hon. Mr. Ehrenstein, M.L.C. for St. Thomas, which is being brought up in the Legislative Council,—That an Agricultural Development Committee be appointed.

We the agriculturists of this country, are very patient burden bearers, but it is about time that we should unite and organize so as to force the provision of the necessities of the prosperity of agriculture which is also the national prosperity and especially so that there are leaders in our community who realize the need and should unite to subscribe their time and ability in assisting to provide it.

* * * * * * *

Much controversy has taken place with regards to competition between our local dairy Industry and imported New Zealand butter.

Some very startling facts emerge from the speech reproduced elsewhere in the issue which was given by the Chairman of the New Zealand Meat Board, Mr. David Jones at a luncheon given in his honour by the Royal Empire Society in England.

The most startling fact of all, is his statement that New Zealand butter is selling in England at 8d. per pound when it costs at least 1/- per pound and also that New Zealand Cheese is selling in England at a figure below its cost of production.

This unequivocal statement should set at rest a doubt held by many in this country as to whether New Zealand butter is not being dumped upon our markets regardless of its cost.

To allow any of our industries to encounter unaided, competition of this sort is of course acquiescing in its destruction.

If such a policy had been adopted with regards to Cocoanuts or Sugar, destruction of these industries would also have resulted.

Very wisely such action was taken as has preserved them. The cattle industries, dairy and beef together are responsible for a very large slice of our national income, ranking next to Bananas and Sugar and holds potentialities for further expansion and so cannot be set aside as unimportant.

We sincerely trust that action now in hand will materialize to effect the placing of these important industries on a sound, organized and profitable basis.

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EXTRACTS FROM CURRENT LITERATURE.

His Excellency made some very interesting pronouncements in one of his speeches in St. Elizabeth, and those with reference to the Live Stock and Tobacco Industries are of special interest to us in view of the work that the Jamaica Agricultural Society has been putting into these questions. We reproduce extracts of His Excellency's speech and take the liberty of emphasizing by printing in heavy type some of what has been said. Editor.

(Extract from "Gleaner" May 20, 1935.)

And now he came to the question of cattle rearing, which was one of the principal points brought out. He had very great sympathy with the penkeepers. He had been in three great cattle countries, and in districts where the people depended on their cattle. If the cattle failed them they had nothing else. Crops were grown for the cattle and if they did not sell the cattle they did not get their food. He had seen good cattle here, and he had started that morning by going to a dairy. He had seen good cattle, not only in St Elizabeth, but other parts where it did credit to Jamaica. There was no question about it, they had the cattle, and ought to be able to make the best use of it.

PRICE OF BEEF.

Reference was made in the address to the fact that the Government was buying beef—he thought it was said, at a price below the cost of production. **Well, he was afraid he was not in sympathy with the representations made in this respect.** The buying of beef by Government at a cost which they said was less then the cost of production meant buying at a saving to the taxpayers. When it was a question of calling for tenders Government was not in a position to say it would buy at a higher figure than it could get by tender. He did not see that Government was wrong in buying at the best price, provided it was good beef, and the cheaper the people in the hospital got it, the better for the taxpayer. He was **not in sympathy with giving an artificial price for something, but he had every sympathy with the penkeeper and the industry, and when they asked that some measure of protection should be given to assist them with their butter he was all for it.** If they could build up a butter industry or help in any other way to improve the cattle industry against foreign competition then he said, provided they could do it let them by all means do it, and if necessary he would sooner give the money. **It was not the money that he grudged when he spoke about getting beef as cheap as they could. If they got their beef cheaper they would have more money to spend, which could be spent on assisting the industry. He would sooner assist the industry by giving the money for a definite purpose. But the people in the business must help themselves too. They had to go into the whole question of cost, and what it meant looking on it as an economical proposition.**

CORN AND TOBACCO.

Now there were proposals regarding corn and tobacco. They did not want all to smoke 'jack-ass' rope. Some wanted to smoke a better tobacco or cigar, **and they wanted to encourage the growing of tobacco there** (hear, hear). **He was in favour of that. They could encourage tobacco growing in the way suggested, by giving assistance for flue drying houses.**

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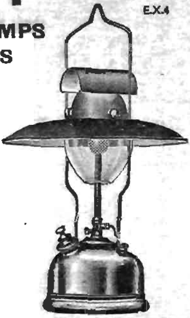

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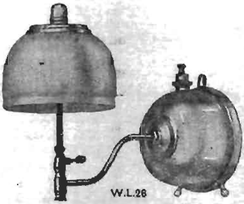

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JAMAICA AGRICULTURAL SOCIETY.

MR. DAVID JONES "TELLS ENGLAND" QUOTAS, FULL INTEREST ON DEBTS, SHIPPING AND GREATER TRADE CAN'T GO TOGETHER.

At a luncheon tendered him by the Royal Empire Society, Mr. David Jones, chairman of the New Zealand Meat Board, and a member of the Executive Commission of Agriculture, outlined New Zealand's problems very clearly, and showed that they were, equally, the problems of England also. Whether Major Elliott's quota schemes will be allowed to mature remains to be seen, but some of the implications of a quota policy were dealt with in his address.

I have chosen as my subject to-day not only our problems, but yours." said Mr. Jones, "because I feel they cannot be separated. I would like to take this opportunity of saying how delighted we are in New Zealand at the remarkable recovery that Great Britain has made in the last two years. Leadership judgment and courage have been shown by your leaders and by the people, who have silenced those critics who began to discuss Britain's alleged decline; that has been a source of great satisfaction to us.

"In New Zealand, as in every other agricultural country, we have felt the depression and the fall of prices porbably more than any other country, because our produce is almost entirely from the soil, and consequently the reduction in values hit us very hard. We borrowed heavily for the development of a new country when our commodities were at high values and we are paying our principal and interest back to-day when those commodities are greatly reduced in value. Both the British Government and the Government of the Dominions have made reductions in their internal rates of interest; of course, they were "voluntary," but voluntary in the same way as we shall voluntarily leave this room by the door in a short time— there is no other way. But those who loaned to the Dominions hold the favoured position in the contracts and their rates remain the same. The point I want to make clear is this, that in New Zealand we were loaned 70-odd million pounds at 5-6 per cent.interest, and the money is being repaid to-day while its value is only 3 per cent. **We are giving you our butter at 8d. per lb., when it costs at least 1s. per lb. and our cheese at less than the cost of production.** You must realize what that means for a little country with 1½ million people; it is a big burden to carry, but we are going to carry it.

"STILL PART OF ENGLAND."

In the early days of New Zealand's developing Britain had two very serious and pressing problems, (1) the problem of surplus population, (2) the problem of the big manufacturing industries to find a market for their goods. To the utmost limit of our resources we met those two problems New Zealand's population is almost entirely British, and we were favoured in this respect. The distance, the difficulties and the dangers met with in the early days mean that only men and women with great initiative and courage took on the task, and the early pioneers of New Zealand were a remarkable body of men and women. We, their descendants, have been such a short time away from you that we do not recognise ourselves as being apart from you in any sense, and we usually look upon ourselves still as one of your

southern countries, and we want you to look at us in the same way. "We borrowed about 180 million pounds from Britain, but that was taken out not in gold but in manufactured goods made by your own workers and with your British capital, and that helped you with another big problem in those days. We developed our country rapidly with the money that was lent, and one of your great needs then was an ever-increasing quantity of food at reasonable rates for your workers, and with the aid of refrigeration we brought that food to your shores, without which your big cities and your workshops would not have been able to carry on.

That "One-Way" Traffic.

"Shipping is a very big interest. We in New Zealand have a method of contracting for our shipping entirely to the satisfaction of British interests; the amount for meat, dairy produce and fruit totals about four millions sterling, and the contracting includes our wool and passengers, making a contract roughly of some eight million pounds, which has always been let to British companies with British ships and British seamen. Another of your problems is unemployment in your shipping yards. It is useful to remind you that in the last few years we have built twelve large refrigerating vessels in British shipyards, entirely for the New Zealand trade.

"In this world depression serious problems, of course, have arisen for you and the rest of the Empire. Many countries who were your best customers are disappearing to-day, and you have the notice up in many places, One-way traffic only. Britain is to-day virtually the only big buyer of agricultural produce. With the open-door policy that was yours, you became the world's dumping ground, and problems arose for you which we appreciated. We have looked upon the British market as always open to the Dominions without limit, and our rapid development, with its consequent liabilities in a new country, makes it difficult to frame our policy for the future when we begin to discuss limitations. That is our joint problem—the question of what proportion of the trade the Dominions are entitled to, and what the Dominions can do to assist British trade.

Empire Preference Policy.

"It was Joseph Chamberlain who, long years ago, saw this looming up in the distance. Seeing the danger, he brought out that big, broad Imperial preferential trade policy within the Empire, but it was not until the depression came, with its embargoes and quotas, that it was forced upon you from other countries to change your policy in self-defence. There was no option; it was no longer a question of free trade and protection, but one of self-defence. Criticism has been levelled against Ottawa and Ottawa has been a wonderful gain to the whole Empire. Mr. Elliot's speech given in 'The Times,' showing the increase of trade since Ottawa, is very illuminating.

"As one of those who was at Ottawa, I know that criticism was levelled against it because of its bargaining spirit. Of course there was bargaining, and of course there were difficult periods. It was inevitable that it should be so. There you found nations beginning to feel their strength and the greatness of their future, with desires to expand in every direction but when they met the difficulties of other nations and began to realise more fully the necessity for compromise, then finally agreements were reached between all parts of the British Empire, which will have far-reaching effects. New Zealand appreciates the value that came to her through the Ottawa Conference. It has been a great service to

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our Dominion, and, as far as meat is concerned—which is my particular interest in Great Britain to-day—it saved the meat market of Great Britain from chaos and ruin both to the Home and the Dominion farmer. The agreement reached there was that an exapanding share of the trade should definitely be kept within the Empire in order that the Empire might become increasingly powerful and its members more essential to one another. That was the policy defined at Ottawa and the one we want to emphasise to-day.

The Foreigner in Time of War.

"Another of our mutual problems is the question of defence. I was at part of that House of Commons debate in connection with the necessity of air defence for Britain. Let me remind you that an army still marches on its stomach, and food is just as essential for defence as battleships, planes or munitions. In the Great War Britain came to her Dominions, with food prices mounting rapidly, and asked them to sell to her at moderate prices the food supply for the army. We did so. We claim no credit for it; it was our battle as much as yours, and we were glad to do it, while the foreigner charged to the uttermost limit for all the produce he sold to you. What I am going to emphasise is this—when you are discussing restrictions and quotas, it is a great thing to be sure of the origin and safety of your food supplies, and what we did then should be thrown heavily into the scale in our favour to-day.

Strengthening the Empire.

"Wrapped up in that problem of self-defence and sound defence is the necessity for strengthening and building up the Empire where its population is sparsely scattered, and increasing their production and wealth. It is also a sound policy to do your trade with your own people and the people you know. When I say this, I talk to the Dominions just as much as to Britain; it is just as essential for the Dominions to realise their duty to Britain as it is for Britain to recognise her duty to the Dominions. It is better to do your trade with the clients whose business is permanently increasing and whose interests are thrown in with yours. That is very important, for the Dominions are no longer a small part of the British trade; we take practically one-half of the manufactured trade of Great Britain to-day. One of your best systems of national insurance and finance is to take care of your best customers, particularly when they are your best friends.

"In a gathering of the Royal Empire Society such as this, one thing I would like to say is that what is wanted to-day is an awakened Empire consciousness right through the Empire as to the necessity of our trading with one another. That spirit exisits in New Zealand in a very marked degree. The New Zealand people demand the things that are British; 50 per cent. of our entire importations comes from Britain; 25 per cent. from British Dominions, and 25 per cent. from foreigners, and that includes petrol and many other things which Britain cannot supply.

Home—Dominions—Foreigners.

"I had something of a shock two or three weeks ago when I went down to a country town in the heart of Wiltshire, in one of the far-med dairy districts. I saw a cask of Danish butter, a big block of English butter and a big block of Empire butter, and the Danish butter [illegible]/3 per lb., the English 1/- and the Empire 8d. Oh, the modesty [illegible] English people! It is your so-called sporting instinct that will [illegible]u eat even English butter? Charity begins at home, and if

we could only get that spirit created in Britain and her Dominions we should solve many of our problems. English butter should be sold here at 1/3, Empire at 1/- and foreign at 8d. That is one of our big problems, to get that Empire consciousness. We recognise the difficulties of British agriculture and appreciate them. The Ottawa understanding was, British agriculture first, Dominions second, and foreigners third. I have in my hand Mr. Walter Elliot's statement in the House of Commons expressing himself as fully in agreement with that policy. It is right.

"To turn to the meat trade, in 1933, of the whole of the importation of meat, including bacon, into Great Britain, 70 per cent. was foreign and 30 per cent. Empire. The Dominions also ran. In the Argentine agreement it says that if you reduce chilled beef from the Argentine below 90 per cent, you must make a similar reduction in all meat from the Dominions.

"We agreed to the Ottawa policy, home first, Dominions next, foreigners third; we want to get them in their right place. We recognise fully the British Minister's problem in British agriculture, and I know he will appreciate our position and give us the treatment that he says it merits along the lines of the Ottawa Conference. Your problem with the foreign trade to-day is difficult; you have been losing trade and the foreigner is going back to the old days of the walled cities, while we are doing a 50-50 trade with you in your manufactured goods; we ask you to see that we get our 50-50 proportion as far as meat is concerned. I have just been looking at some of our problems and yours. By looking at them together we shall get a mutual understanding."

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AGRICULTURAL CAMPAIGN HERE.

Letter from Mr. J. G. M. Robertson to Sir Arthur Farquharson.

"Torrie,"
Reading, P.O., Ja., B.W.I.,
11th August, 1934.

Sir Arthur W. Farquharson,
Chairman, Jamaica Imperial Association,
Kingston.

My Dear Sir Arthur,

With the recent debate in the Legislative Council on the cattle and dairy industry of the Island coupled with the almost criminal delay in putting through some Banana Storm Resuscitation Scheme to safeguard that industry before the now rapidly approaching hurricane season, it would point to some united campaign on behalf of agriculture being highly necessary, especially with the advent of a new Governor, and that the elections to the Legislative Council are shortly due.

The debate referred to and the delay in safeguarding one of the Island's most important industries, forces on one's mind that the importance of agriculture to the prosperity ,or to go further, and call it the life blood of the Island, is not fully or sufficiently realised, and through the multiplicity of other matters, not taking its proper place in the thoughts and minds of the Executive, Elected Members, or the Electorate of the Island; being as it undoubtedly is the first, and practically, only means of livelihood of the whole colony, and it now seems of grave importance to force home on the Executive, Elected Members, and every taxpayer in the Island their duty towards agriculture upon which their whole source of livelihood depends.

We can roughly classify the island's income from four sources, viz:—

1. Agriculture and place this at 90 per cent.
2. Dividends and interest from funds invested overseas.
3. The tourist trade.
4. Industrial factories, placing these three as providing the other 10 per cent.

Following this line of thought, we find that upon agriculture (and by agriculture I include every agricultural holding, large or small which is devoted to the products of the soil) depends the livelihood of every man, woman, and child from the Governor down to the lowest unskilled labourer, irrespective of occupation or calling; and that therefore not only does the planter depend upon his efforts for his own individual requirements; but that upon those efforts depend the official classes, the professions, merchants, traders, wharfingers, shipping companies, bankers, and every member of the entire community, and that further upon the industry brains, capital and vision of the agriculturist depend the social conditions and advancement of the entire colony. An extreme example means that a serious breakdown in production; a serious breakdown throughout the Island—as witness the effect of two years storms on the west end of the Island. If the agriculturist is forced to curtail production by lack of capital, lack of confidence, lack of profitable markets, or by bearing undue proportions of the burden of taxation, so accordingly must the whole community suffer, as witness the English industrial situation until taken in hand by practical requirements.

To elaborate the meaning of this, under our conditions, let me put it up to you, which I do without fear of contradiction, that upon the spending power of the Island depends its prosperity, and that in an

Island such as this, 80 per cent. of its spending power finds its way into the hands of the merchants and traders and that on this 80 per cent. the Government collects its Customs Revenue—the largest collection of taxation—coming again down to this being dependent on the spending power, and this spending power being derived from its income—90 per cent. agriculture—or 18/- out of every £1 earned by every individual.

We will now turn to what has been done for agriculture recently.

1. The Banana Industry. Here we have in normal times an industry supplying the population with a spending power of not less than two million pounds per annum—taking the proceeds of fruit exported, and including the incidentals beyond which the actual grower receives. It brings shipping here, provides railway and truck haulage, wharf hands employment, salaries of buyers and buyers' agents, importation of mechanical power and gasolene; every item of which puts revenue into the Government purse.

It was put up to the Government that the industry was in some danger of suffering from unfairly low prices (whether this was correct does not come into the picture) which would have undoubtedly a most serious effect on the whole Island. The Government would not take the initiative in suggesting any safeguards; but by private enterprise an Island-wide campaign, a work covering several years, both to get the necessary support from a large enough body of planters and convince the Government, and finally the invaluable support and influence of your Association; a scheme was eventually suggested, and after considerable opposition, alteration and delay, finally secured the sympathy and co-operation of the Executive and materialized in the formation of the J.B.P.A., the Government finally carrying the Bill through, but granting in part only the debenture guarantee required; and passing the necessary laws to safeguard the now formed Association. The far-reaching effects of this being to stabilize prices at a certain level, thereby stabilising Customs Duties on 80 per cent. of the stabilized price through the spending power thus also stabilized, not only on the Association's fruit, but on the whole product of the Island, benefiting as pointed out before, not only the industry itself; but the trading community in particular and the whole Island generally by providing funds for general revenue through the Customs Duties.

2. The Sugar Industry. This is the second largest spending industry in the Island possessing more stability by being less susceptible to storms than the fruit trade. An industry which provides a spending power of roughly one million pounds per annum through its sugar and rum production, which latter, through special Rum Duties, is of particular value to general revenue, apart from the actual spending power of the industry. This industry was threatened with extinction, which extinction was, I think, even advocated or recommended, by a certain Secretary of State on the mistaken notion that any industry not being able to pay its way should go out of operation, altho' the position here was from world wide issues and complications, and not from domestic inefficiency.

The sugar planters organized themselves into one body, and with the far-seeing help of your Association brought the position before the Government who were then faced, on the one hand, with the Secretary of State's dictum and on the other hand, by serious loss of revenue both direct from the Rum Duties, and indirectly through the spending power being lost and unemployment to be provided for. Our Executive wisely and fortunately for the Island, saw the issue clearly and decided to support the industry with subsidies until some

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further review and adjustment could be made. Eventually on the continual urge of the planters and the invaluable wisdom shewn and urged by your Association, a Bill was brought in to end the uncertainty then existing and doing untold harm to the industry. This Bill, the now existing Sugar Bill, was passed, fixing lines which have undoubtedly given a feeling of security and warranted development. It also brought about and established the principle that the consumer should pay a price for a necessity which is fair, and that through world depression, he should not obtain a necessity at the expense of capital losses of the producer, both being equally dependent on agriculture for their livelihood. To digress for a moment there is some grumbling about this increased cost to the consumer, estimated at about ½d. per lb.; but I have little hesitation in saying that this increase will be proved more apparent than real, if comparisons of world prices of raws are compared with our retail prices of years ago when similar wholesale prices existed.

The benefits accruing to the island by the wisdom of these subsidies and the present Sugar Bill, must be a monument and example for future administrations providing as it does the uncontradictable example that the Customs Duties have more than recovered, through the spending power conserved; the subsidies general revenue provided.

3. The Coconut Industry. The Coconut Association was the outcome of the co-operative movement, an effort to keep money in the Island, an attempt to create a manufacturing industry and to provide the community with products hitherto imported, all objects which would benefit the Island generally, general revenue particularly and through the spending power created make for increased prosperity through skilled and unskilled labour finding remunerative wages. The matter was brought before the Executive by the organized effort of a large number of coconut growers and received, I understand, sympathetic encouragement; but I believe through the Elected side of the Legislative Council, whose fear of loss of Customs Duties, not appreciating the value of spending power in relation to this, the Association rather than see their scheme thrown out, or indefinitely delayed, agreed to the collection of duties on their home product in exchange for a prohibition on imported edible oils, under the belief that they could reimburse themselves by an increase in price to the consumer. The fallacy of this has been clearly demonstrated the effect of this "double duty" curtailed sales to the public, making an otherwise fine product a luxury, allowing cheaper and inferior country oils to undersell them and generally defeat the object of their formation. In fairness to the Executive it is only right to admit that they removed the direct tax as soon as it was demonstrated that the Association was faced with collapse, but is an instance which clearly shows that if the spending power in relation to general revenue is not considered, new industries must suffer in their early stages when operation and management can only learn by the experience they gain from practical operation and it would appear that general revenue by having collected practically double duty, would not be the loser by equivalent grants to the Association now.

4. General Penkeeping: This industry probably looks after more lands than all others combined and is one which embraces live stock, logwood, pimento, citrus fruit and many other of our minor products of an exportable nature; but in this letter I do not propose to touch on more than two items—cattle and logwood.

Cattle and Dairy Industry: This is purely an internal industry doing no export trade; but must be regarded as the big side of pen-

keeping generally and I will give the view I see of this industry and the Government's collosal ignorance.

I know a property devoted entirely to cattle because the land is unsuited to anything else. The herd there is in round figures a thousand head. Of this the productive part of the herd—its breeding cows—is 200 head, the balance of 800 head being stock in all stages of growth to eventually find their way into the meat markets of the Island. What can this herd of 1,000 head well bred beef stock produce per annum? 85,000 lbs. of beef—worth on to-day's prices not more than £1,250. Can any sane man say that this gross return is one which he would retain and be content with if there was anything better to be done? Fattening is the last resort of cattle breeding, can only be done profitably on cheap lands, in semi-natural condutions such as in the Argentine, and without the intelligent support of the Island's representatives, the stock breeder of Jamaica is forced into it and it alone, and he thus provides the Island community with cheap food without a living wage for himself. Yet the Island recently had a chance of developing its dairy business and if I remember rightly the majority of the members of the Island's Elected representatives of this, an Island dependent on its agricultural products, refused to do anything because it would slightly increase the cost to the consumer, stultifying their considered opinion in the case of sugar, and not even considering the matter from any other point.

But let us examine what might have been, had our representatives taken a more enlightened view. That herd in the course of 5 years would probably have been converted into a dairy herd of 500 or 600 milch cows—increasing the labour bills by probably 100 to 150 per cent. providing factory work for a considerable number of poeple saving the sending out of the Island and thereby curtailing the spending power of the people, the many thousands of pounds for dairy produce, with little or no loss to general revenue because as shown before, money spent in the Island contributes to Customs Duties almost on an equality with imported goods. The cost I think, was estimated at not more than roughly 1d. per 1 lb. tin of milk and 3d. per lb. on butter with probably a reduction of part of this after the 5 years required to get going had elapsed. This 5 years being required for the conversion of the herd and to perfect a cow—already considerably developed by the Hope Farm—to suit conditions here, which are so entirely different to those of a temperate zone, specialised for many years for special local conditions and requirements, unsuited to the Tropics, that time and encouragement must be given to do the same under our conditions.

Logwood: This industry is of vital importance to certain sections of the Island and by private enterprise no less than four factories have at different times been established and operated, only one of which now exists, this I believe controlled by strong foreign interests, although registered as an Island company. The three factories, now no longer operating, put, whilst they lasted, a very considerable spending power into the hands of the people, from which general revenue, as shown, derived its proportionate augmentation, and it would seem lack of business ability to have allowed this augmentation to general revenue, with its attendant benefits to employment and trade, to be lost without some effort to save it.

Looking at this aspect broadly and possibly only from an employment view, it would seem to one that if this spending power was not more than £100,000 a year, from which on the figures given, the Government purse only benefitted by £12,000 a year, some exploration of some

bounty system might have been initiated by the Government, for if they gave the whole benefit received by general revenue they would not have been any bigger loser than they have been by the loss sustained in the factories being abandoned, whilst retaining benefits both in employment and trade.

From the foregoing it will be gathered that the Government entirely lacks initiative in industry; but that it is only too ready to do its duty when strong and justified reasons are proved as in the banana, sugar and coconut industries set forth; but without this, as in the logwood and cattle industries, lacks vision and allows retrogression to take place, for in no case has the safeguarding of the Island's life-blood been initiated by the Executive.

We will now turn to a comparison of direct taxation imposed by our representatives, who have a definite control over finance measures.

The agriculturist has his land taxes and certain licenses. The non-agriculturist (bankers, merchants, traders, professions) have their taxes on their premises and trade or other licenses. Both have their income tax, the former with a slight rebate. All are equally dependent on agriculture.

Let us therefore compare how the assessment and collection takes place. Once the non-agriculturist has paid his valuation rate and license, he is finished, and it doesn't affect him from a taxation point of view what his turnover may be, whether he handles 1 or 1,000 tons of anything, what he imports or what class it is. The same with the professions; but not so with the agriculturist. "A" has a property of 1,000 acres of ruinate. He sits down on the land, spends (i.e. circulates) little or nothing on it, and pays taxes of no value or importance to the Island—probably on a £1,000 or £1,200. He sells to "B," "B" converts 500 acres of this ruinate into cultivation, spending (i.e. circulating) probably £5,000 in doing it. Remember that on this £5,000 which he has put into the people's hands, the Customs Duty benefits on 80 per cent. Now what happens? The Tax Collector, authorised by our representiatives comes along and practically tells Mr. B. your representatives do not want you to improve the land and provide labour and revenue for it, and as you have dared to oppose their wishes they have authorised me to impose a fine on your activities and as you have put in bananas, we are going to fine you 15 to 20 times in land taxes, notwithstanding that the £5,000 you have already spent has helped to pay me and my brother officials, placed money in the hands of labour to help them pay their taxes; and helped to swell the volume of trade.

Again the Agricultural Society rightly preaches better dwellings and holdings; but the small man does not understand why one Government Department, as he thinks it is, advocates improvement, and finds when he has done it, another Government Department makes him pay more taxes, and is it therefore, any wonder that progress in this direction is slow and viewed with suspicion?

I am fully alive to the answer that will be made in regard to any alteration in land taxation but when this answer is made, I would be glad to have it accompanied by any sound reason that one section of taxpayers, and that the section who are providing 90 per cent. of the Island's income, should be taxed on entirely different lines to any other section.

I have endeavoured in this letter as a plea for better consideration for agriculture, to show that all sections being dependent on it, should bear their proportionate burden in development and maintenance—

which is particularly apparent in the agitation now for Banana Insurance or some safeguard for storm damage. As general revenue derives, as shown, the largest portion of its Cuustoms Duties from the spending power any industry gives, why should not general revenue provide some portion for safeguarding it? Why, if every merchant, trader, professional man, or official is dependent to the extent shown on its existence, should they expect the planter to bear the whole cost?

Whilst on this subject, let me suggest to you, that if exports are to be maintained, it is essential that cultivations should be equally maintained. If the planter is left entirely to his own financial ability in times of stress, he can only cultivate to the extent of his own private resources, repayment of loans and interest must diminish such resources and reduce his culitvations, as has happened in the West End during the past 2 years. The planter has offered to provide an impost duty equalling roughly 50 per cent. of a very inadequate Resuscitation Fund. What sound reason can be brought forward that general revenue should not bear the remaining 50 per cent.?

It seems necessary to bring strongly to the notice of the Executive the important part indirect revenue plays in relation to agricultural matters and the importance of agricultural development to indirect revenue, that the one cannot be considered without the other, and that the time has arrived for a strong Agricultural Council composed of experienced Island planters with a whole-time experienced and able man of vision at its head to guide our Agricultural Department in the directions needed, with an Agricultural Department the most important branch of the Public Service with a vote not based on what it is considered the island can afford to spend; but on its importance in relation to the Island's welfare.

Some entire revision and recasting of agricultural taxation would appear overdue, with the abolition of the Valuation Law on agricultural holdings, substituting some flat rate per acre to go entirely to the Parochial Boards to enable them, in addition to their present duties, to develop and get access to undeveloped areas which do not as yet warrant Central Government development or P.W.D. upkeep.

Direct taxation, through income tax, should be made to balance calls for agriculture for in this tax everyone including the planter, bears its just proportion and as the community in its entirety depends on agriculture, so the community in its entirety should bear taxation.

With apologies for the length of this letter and hoping the views set forth may justify some action by your Association.

I am,

Sincerely yours,

J. G. M. Robertson.

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90 TOWER ST., - KINGSTON.

AND GET OUR PRICES.

ANNOUNCEMENT.

Irrigated Banana Land on Liguanea Plains.—

Investors interested in irrigated banana properties on the Liguanea Plains of St. Andrew, should get in touch with the Secretary, the Jamaica Agricultural Society, who can put bona fide enquirers in contact with owners of banana lands with water available and some cultivation already established.

These lands are among the most attractive agricultural investments.

The Brown's Town Benefit Building Society.

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EDITOR'S LETTER BOX.

Editor, Journal, Jamaica Agricultural Society,

Sir,

Your editorial on Red Peas—Journal March, 1935, Page 166—is indeed very interesting. I think it should be reprinted and circulated through the Instructors or any other suitable agency. I have always noted the almost absence of local red peas on the market, and at the same time I always feel convinced that it is a crop that can bring a fair profit under ideal conditions.

Some years ago, I carried through some experiments in Upper St. Andrew. I have not notes with me now, as they, among other agricultural books, got into the hands of a gentleman who did not feel disposed to return them to me. I remember however, that my greatest difficulty was—to get a large plot of land for the crop. The most I could get in the suitable sections was 2 square chains. I however was able to convince my neighbours that with a little extra work and different methods to that used by them, red peas should produce a profit equal to, and in many respects better than yam, which was their chief crop then.

In view of local and world conditions to-day, it is absolutely necessary that we should encourage a greater variety of crops. Your editorial comment is indeed timely, and I would certainly ask that the article be reprinted for wide circulation throughout the Island. It is only by so doing that the desired improvement will get a chance to be effected.

I am, etc.,

H. LEO. BROWN.

103 Orange Street,
17.4.35.

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" " 2' 6" x 5' 6"		15s. " "
" " 3' x 6'		16s. " "
CHAMBER DOORS, 3' x 7'		26s. each
" " 3' x 6' 6"		24s. "
" " 2' 6" x 6' 6"		22s. "
SQUARE HEAD GLASS DOORS, 3' x 7'		36s. per pair
" " " " 3' x 6' 6"		34s. " "
CIRCLE HEAD GLASS DOORS, 3' x 7'		40s. " "
" " " " 3' x 6' 6"		38s. " "
OTHER SIZES ARRANGED FOR, ALL 1½ FINISH.		
P. P. CORNICE, 3"	10s.,	12s. per 100
" " 4"	13s.,	14s. " "
CAVETTA MOULDING, 1½"		7s. " "
" " 2"		9s. " "
BACK MOULDING 2"		8s. " "
" " 1½"		6s. " "
" " 1"		5s. " "
P. P. HAND RAIL, 3' x 4'		45s. " "
P. P. FOOT RAIL, 2" x 4"		40s. " "

Apply at 24-26 East Street, Kingston. 'Phone 2794.

FENTON'S CABINET ESTABLISHMENT.

THE GUNGO OR PIGEON PEA.

The home of the guugo or pigeon pea was in the East, probably in India where it is still very extensively grown. It is now found throughout the tropics. In Jamaica, although never grown on a large scale, it is a staple article of diet and is to be found in almost every small cultivation.

It is an exceptionally valuable crop in the drier areas on account of its drought resistance.

Like many of the crops which are chiefly in the hands of peasant cultivators, it is very mixed. As a fairly high percentage of cross-fertilization takes place naturally, the isolation of pure varieties is less simple than is the case with many other leguminous crops.

Some work in this direction has been done in Hawaii; and varieties have been isolated which are a great improvement over the common mixture.

The existence of some superior strains in Jamaica has been brought to our attention recently. The following descriptions of three varieties have been furnished by our Instructor in St. Thomas, Mr. U. A. McLaren.

Variety No Eye.

A late maturing pea which never grows to a large sized tree, likes a dry locality. Best planted in June or July. Seeds are small, easily cooked, very delicious. This is considered to be the finest eating variety. Seeds are always white. The only variety that boils a clear white soup.

Variety Porus.

An early maturing pea which if planted between December and March will produce a crop by the following November; never grows into a large tree. Pods striped and with five to six average sized seeds; easily cooked; excellent flavour when eaten green; seed coat not very thick.

Variety Tamarind or Minto.

Grows into a large tree; should be widely spaced. Thrives on fertile soil; a heavy cropper. Best planted in April to August.. First crop average; second crop heavy. Large seeds, pods with dark markings on outside between seeds. Excellent cooking variety; generally five seeds to a pod.

(Extract from "The Public Ledger" (England) May 2, 1935.)

HOUSE OF COMMONS.

Soya Beans (Empire Production).

Mr. Hall-Caine asked the Secretary of State for the Colonies whether steps are being taken in any of the Colonies to develop the growing of soya beans with a view to taking advantage of the preferential rates which will henceforward be available on soya beans imported into this country?

Sir P. Cunliffe-Lister: I understand that experiments are being conducted in the production of soya beans in Nyasaland and Tanganyika, and commercial production within the Empire will no doubt be assisted by the proposed imposition of duty on foreign soya beans. The primary object in imposing this duty was, however, to place soya beans in a similar position to other foreign products competing with colonial oilseeds and nuts.

FERTILISERS.

The Jamaica Agricultural Society stocks fertilisers for the convenience of small users.

We sell from 1 lb. to 1 ton.

ADVICE AS TO APPROPRIATE FERTILISERS WILLINGLY GIVEN ON APPLICATION.

Every farmer should institute some small trials to gather experience.

Fertility of Soils must be maintained if we are to exist.

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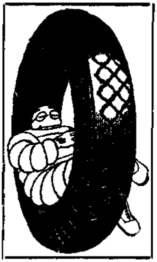

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SELLER'S PURE LOTUS HONEY

A reliable remedy for all sorts of

EYE DISEASES.

It cures inflammation of the eyes—Imperfect sight, Bloody eyes, Fleshy growth in the eye, Burning in the eye, Granular eyelids, Leucoma, Cataract, Glaucoma, etc. etc., If used in the healthy eye it keeps the eye cool, and renders it proof against future evils. Literature and prices obtainable from:

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MARKETING NOTES.

(*Extract from Weekly Fruit Intelligence Notes*, 13*th March*, 1935.)

Imports of bananas showed a continuous ncrease up to 1929, in which year a total of over 65 million bunches was reached, but in each of the four following years there was a substantial decline. Last year's imports, amounting to over 47½ million bunches, show an increase of 8 million burches in comparison with the previous year, but a decline of 11¾ million bunches as compared with average imports in the five years 1928-32.

The chief source of supply of the bananas reaching the United States is the Republic of Honduras. Imports from that country during the past two years however, have shown a considerable decline, imports from Honduras in 1933 and 1934 totalling only 12¾ million and 14½ million bunches, respectively, as compared with an average of over 21½ million bunches in the five preceding years, while imports from Mexico, Panama and Columbia, although fluctuating from year to year, have tended to increase. Imports from Honduras last year accounted for about 30 per cent. of the total imports, as against 32 per cent. in the previous year and an average of 36 per cent. for the five preceding years. Up to and including 1932 Jamaica followed Honduras in order of importance, but although imports from Jamaica last year were substantially heavier than in 1933, when production on the Island was seriously reduced by severe storm damage, they are now relatively unimportant. Other sources of supply include Guatemala, Costa Rica, Nicaragua and Cuba. No important variations are shown in the quantities coming from these countries during recent years, although imports from Guatemala have fallen considerably since 1929. Imports from Ecuador showed a marked increase in 1934 and there were also comparatively heavy supplies from Haiti.

Table II shows imports of bananas into the United States in each of the past six years.

TABLE II.—*Imports of Bananas into the United States.*

Country from which consigned.	1929.	1930.	1931.	1932.	1933.	1934.
	Thousand bunches.	Thousand bunches.	Thousand bunches.	Thousand bunches.	Thousand bunches.	Thousand bunches.
Jamaica ..	10,873	11,929	10,315	4,777	275	734
British Honduras	327	166	170	159	225	287
Honduras Republic ..	22,676	22,050	21,228	18,308	12,874	14,584
Mexico ..	5,700	6,505	5,164	4,549	6,591	8,536
Panama ..	4,755	4,761	4,915	4,546	4,884	5,717
Guatemala ..	7,260	5,079	4,091	3,286	3,117	3,603
Costa Rica ..	4,126	3,228	3,342	4,040	3,490	2,670
Nicaragua ..	3,989	3,672	2,621	3,397	3,432	2,370
Cuba ..	3,801	4,031	3,062	3,651	2,396	5,225
Colombia ..	1,534	1,233	890	2,666	2,175	2,508
Ecuador ..	..	..	13	31	114	931
Haiti Republic ..	..	4	..	38	28	444
Other Countries	93	73	43	9	12	70
Total ..	65,134	62,731	55,854	49,457	39,613	47,679

A comparison between imports of bananas into the United States and into the United Kingdom in the past quarter of a century shows that the development of the banana trade in the latter country during the period has been relatively much more rapid. Imports into the United States in the peak year, 1929, were about 49 per cent. heavier than the yearly average during the years 1909-13, but in 1934 they were only about 9 per cent. heavier, and in 1933 about 10 per cent. less than that average. Imports into the United Kingdom in 1929 were two-and-a-quarter times as great as the 1909-13 average, but, in contrast with the decline which has occurred in the banana trade in the United Sates since that time, there was a continuous increase in imports into the United Kingdom up to 1932, when the total had risen to over two-and-a-half times the average for the five years 1909-13. In 1933, there was a set-back on account of the big decrease in supplies from Jamaica, but imports last year were about the same as in 1932.

Details of imports of bananas into the United States and into the United Kingdom are given in round figures in Table III.

TABLE III.—*Imports of Bananas into the United States and into the United Kingdom.*

Period.	United States.	United Kingdom.
Five-Year Average—	Bunches.	Bunches.
1909-13 ..	43,700,000	6,700,000
1922-26 ..	51,100,000	11,900,000
Year—		
1927	61,000,000	12,700,000
1928	64,300,000	13,000,000
1929	65,100,000	14,900,000
1930	62,700,000	15,000,000
1931	55,900,000	16,200,000
1932	49,500,000	17,100,000
1933	39,600,000	15,900,000
1934	47,700,000	17,100,000

(*Extract from Monthly Report on the Produce Markets from Messrs. Gillespie Bros. & Co., Ltd., London, 28th March,* 1935.)

Sugar.—Throughout the past month a note of firmness has been persistent in this market, which after a very long period of depression is specially welcome. This is due rather to a general recognition of the soundness of the position and the absence of selling pressure than to any outside influence such as interest on the part of speculators. The latter, indeed, has been distinctly in abeyance which is not surprising in view of the recent Mincing Lane troubles in other commodities. Heavy losses in Pepper, and to a smaller extent recently in Cotton and Rubber, have made commodity investors cautious, and the continued improvement in Sugar indicates a considerable underlying element of resistance.

The advance in values though gradual has been very steady, and the

rise in the value of Raws since we last wrote has been about 4½d. per cwt.—and from the lowest point of the market, 1/- per cwt.

Honey.—Buyers have shewn rather more interest, but only at some concession in price. We quote dark liquid Jamaica, 24/-; amber liquid, 25/- to 28/-; pale liquid, 29/-, 30/-; dullesh to palish set 25/- to 27/-; pale to fine white set 28/- to 35/- per cwt. *The cheaper offers from Jamaica on c.i.f. terms have made it quite impossible to maintain previous spot prices.*

(*Extract from Weekly Fruit Intelligence Notes, 3rd April, 1935.*)

Fresh Fruit Consumption in the United Kingdom.

	1928.	1929.	1930.	1931.	1932.	1933.	1934.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
Consumption per head ..	68.5	81.8	85.0	80.1	79.0	88.5	95.6

LOCAL PRODUCE PRICES.

Cocoa—Ordinary	18/- delivered Kingston
Fair Fermented ..	18/- " "
Estates Fermented ..	19/- " "
Coffee—Good Ordinary ..	28/- " "
Fine Ordinary ..	29/- " "
Manchester-B ..	29/- " "
Manchester-A ..	30/- " "
Honey—White	1/9 per gln. delvd. Kingston
Pale	1/3 " " "
Light	1/- " " "
Dark	9d. " " "
Kolanuts—Sound quality, well cured,	5/- delivered Outport
	6/- delivered Kingston
Sarsaparilla—Well cured, Red Roots,	38/- delivered Kingston.

GEORGE & BRANDAY,
KINGSTON
Have been Buyers of Agricultural Produce,
COFFEE, COCOA, PIMENTO, ETC., HARDWOOD, LIGNUMVITAE, EBONY, SATINWOOD, DYEWOODS, LOGWOOD, FUSTIC, GOATSKINS, CATTLE HIDES, BITTERWOOD, SARSAPARILLA
FOR OVER 50 YEARS.
CORRESPONDENCE INVITED.

ANOTHER WASP TO CONTROL INSECT PESTS HAS BEEN SUCCESSFULLY INTRODUCED IN JAMAICA.

The parasitic wasp *Aphelinus diaspidis* introduced last year in Jamaica by the Government Entomologist, has been found to have established itself at Hope where it has been liberated and kept under observation. The Department of Agriculture will soon be in a position to supply planters with supplies of these useful organisms for liberation on their properties.

2. The larvae of the wasps, which are of microscopic dimensions, feed on scale insects which infest citrus (including the red scale: *Chrysomphalus aurantii*) and also the scale insect *Aulacaspis Pentagona*, a pest which in Jamaica is very destructive and frequently attacks Papaw, Hibiscus, Oleander, Cotton, Mulberry, Peppers and many other ornamental and plants of economic importance.

3. In view of the great economic significance that the successful introduction of a similar parasitic wasp has had, with regard to the control of the Black Fly Pest, planters are strongly advised to take full advantage of this later introduction.

4. Requests for supplies of the parasite should be made in advance by writing to the Government Entomoligist, c/o the Director of the Department of Science and Agriculture, Hope, Kingston P.O.

(Sgd). A. C. Barnes,
Director of Agriculture.

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BIGGER CROPS ?
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SPRAYING AND DUSTING EQUIPMENT.

We have just received a copy of the 1935 Catalogue of "Vermorel" Spraying and Dusting equipment from the Manufacturers, Messrs. Cooper, Pegler & Co., Ltd.

The Catalogue lists a wide range of Machines suitable for every type of agricultural spraying problem, as well as machines for limewashing, creosoting, etc.

Of especial interest is a new series of High Pressure Hand powered Spray Machines. Knapsack Sprayers can be obtained which maintain a pressure of 175 lbs. per square inch with a working liquid capacity of up to $3\frac{1}{4}$ gallons. A larger type the "Cascade" works at a pressure up to 300 lbs. per square inch a pressure obtainable in the past only with power sprayers. These Machines should be very suitable for use in Scale-Control in small medium-sized Citrus Groves. With the "Cascade" the top of the tallest Citrus tree would be reached with ease, ensuring thorough penetration.

We suggest that readers obtain copies of this Catalogue, which will be sent free if this Journal is mentioned. Requests for copies should be addressed to:—

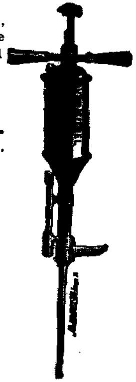
Messrs. Cooper, Pegler & Co., Ltd.,
24/26A Christopher Street, London E.C. 2,
England.

SPRAYING AND LIMEWASHING

THE VERMOREL "EXCELSIOR" SOIL INJECTOR.

(For Woolly Aphis, Cockchafer control, etc.)

The "Excelsior" injects under pressure Carbon Bisulphide, etc., into the soil through a hole in the steel penetrating shaft. The chemical is diffused into the ground round the hole. The method of working is simple and quick.



All types of wet and dry Sprayers made and stocked.
1¾ pints to 130 gallons. Prices from 10/3 to £72.

"EXCELSIOR" SOIL INJECTOR
PRICE COMPLETE 105s.

Catalogues and full particulars of all types from:

COOPER, PEGLER & CO., LTD.

24 / 26a Christopher Street, London, E.C. 2.

(*Extract from the Jamaica Gazette, May* 2, 1935.)

TURN SHOWING THE APPROXIMATE NUMBER OF TTLE SLAUGHTERED IN THE SEVERAL PARISHES DURING MARCH, 1935.

Parish.			No. of Cattle slaughtered.
Kingston	..	..	928
St. Andrew	..	..	104
St. Thomas	..	..	84
Portland ..	..	..	163
St. Mary ..	..	..	131
St. Ann ..	..	..	220
Trelawny ..	..	..	109
St. James ..	..	..	226
Hanover ..	..	..	155
Westmoreland	..	..	237
St. Elizabeth	..	..	171
Manchester	..	..	275
Clarendon ..	..	..	160
St. Catherine	..	..	255
		Total	3,118

OWEN F. WRIGHT,
Inspector General.

You've

been wanting this

a long time............

Now we have secured it for you

KLEEN-SWEEP

FLEXIBLE STEEL PRONG-RAKE-BROOM

It removes the litter without injury to the grass.

AGUILAR'S

104 HARBOUR STREET.

(*Extract from the Agricultural Gazette, New South Wales Nov.* 1, 1934

SOME MINERAL ANALYSES OF HONEY.

The following analyses of five samples of locally produced hone as made by Mr. W. R. Jewell, M.Sc., F.I.C., Agricultural Researc Chemist of the Department of Agriculture, Victoria, and publishe in an article in the Victorian *Journal of Agriculture,* September, 193 are of considerable interest. The figures represent parts per 100,00

The knowledge that honey, in addition to the three important suga levulose, dextrose, and sucrose, contains such important mineral matt as described should greatly increase the demand for the product if tl facts are made full use of by beekeepers and distributors. We live i an age where food values are becoming more and more of a consideratio The fact, too, that our darker honies are the most valuable in miner content, should be useful in furthering sales of this class, the deman for which is usually less than for the lighter coloured article.

	Grey Box.	Yellow Gum.	Red Gum.	Desert Banksia	White Stringy-bark
Total ash	191	183	199	449	583
Silica (SiO2)	11	12	13	18	60
Silica-free ash	180	171	186	431	523
Phosphoric acid (P2O5) ..	6	8	9	11	9
Sulphuric anhydride (SO3) ..	6	5	7	15	7
Chlorine (Cl)	51	17	32	107	82
Manganese oxide (Mn3O4) ..	0.6	0.3	0.3	0.4	0.5
Iron and alumina (Fe2O3+Al2O3)	4	6	6	10	7
Lime (CaO)	16	15	15	13	30
Magnesia (MgO)	7	4	5	8	27
Potash (K2O)	77	66	68	134	215
Soda (Na2O)	5	22	20	103	27

AUTHORISED PERSONS.

Return of Arrests to Quarter ending 31*st March*, 1935.

St. Thomas	1
Portland	8
St. Mary	14
St. Ann	4
Trelawny	3
St. James	19
Hanover	2
Westmoreland	5
St. Elizabeth	1
Manchester	1
Clarendon	20
St. Catherine	24

(Extract from Agricultural Bulletin, Bermuda, March, 1935.)

CHANGING THE SEX OF PAPAW TREES.

The results obtained at Hawaii Experiment Station when 22 perfectly sterile staminate papaw trees on being decapitated produced a new growth which was strictly feminine and the trees bore large fruits, has now been confirmed at Jodhpur. From four plants all male, the cluster of leaves at the top were removed so that no auxillary male shoots might develop, and in all four cases strictly female trees resulted. One is hearing large fruits and the three others have produced female flowers.

Though according to some observers decapitation never produces the desired result, it should be tried before cutting down the male papaw.

From Plant Breeding Abstracts.

AGRICULTURISTS!!!

We can supply you with **SULPHATE OF AMMONIA** in bags of 225 lbs. **EMULSO**—The better spray for Citrus Trees—**RODGERS' PRUNING** and **BUDDING KNIVES** and all other Agricultural Implements.

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BRANCH NOTES.

All Reports received are acknowledged in this section of the Journal. This month we have only been able to put in print Notes from Branches who have not yet had a publication this year.

Branch Secretaries should **write on one side of the paper only.**

[Ed.

ST CATHERINE: Content Bois.—Meeting 27.3.35. Quite a few members and Instructor O. P. Martin were present. Mr. M. Greene presided. In his opening remarks, he mentioned the regrettable fact that the President, Rev. J. A. Leo. Rhynie was expecting to leave these parts and would therefore have to resign his post. Among the important matters discussed were: (a) the keeping of campaigning meetings, in other districts in order to improve the branch numerically; (b) the May Pen Show and (c) the distribution of cane tops. Authorised Persons reported "all correct." Reports were given by the Secretaries and President of the Women's Auxiliary and the Juveniles. It was proposed that the Secretary send for seeds for the Juveniles. Instructor Martin lectured on the proper care required for the growing of sugar-cane. After other important matters were discussed, the meeting terminated with the singing of the National Anthem.

Bellas Gate P.O. G. G. PLANTER,
Reporting Secretary.

Ewarton.—Meeting 4th April, 1935. *Present:* Mr. B. T. Atkinson, 1st Vice-President presiding; Mr. W. C. Irving, President; Instructor C. S. Byles, eight other members and seven visitors. After the usual preliminaries, Mr. Cooke referred to the death of Mr. C. Caryll, J.P. Several members spoke on the life and work of the deceased gentleman and a two minutes' silence was observed as a mark of respect. The Instructor submitted a scheme whereby branch societies could be improved. He felt that there was lack of business methods in connection with their working. His scheme embraced the following heads: (1) Estimated Revenue; (2) Estimated Expenditure; (3) Proposed Improvements; (4) Proposed Propaganda. Mr. B. T. Atkinson moved a resolution stressing vocational training of boys. The meeting closed with the singing of the National Anthem.

Ewarton P.O. W. B. LESLIE,
Secretary.

Lucky Valley.—Meeting 11th April. Present: Instructor C. S. Byles; G. A. Butler, President; several members and many visitors. Authorised persons reported all correct. The President gave his retiring address encouraging the members to be *faithful*. The election of officers resulted as follows:—Messrs. G. Butler, President; S. Walters, 1st Vice-President; P. Morrison, 2nd Vice-President; H. Davis, 3rd Vice-President; Mrs. S. B. Woodham, Secretary; H. S. Dunn, Asst. Secretary; Mrs. I. C. Morrison, Treasurer; Messrs. G. Butler and E. Morrison, Auditors. The Instructor gave an interesting and delightful address. He also made Demonstration on Citrus budding. There were ...cussions regarding the Water Supply of the district, and procuring a Pure Bred Ram ...e Branch. The President made his closing remarks. Eight new members were ... *The meeting adjourned with the singing of the National Anthem.*

...alley P.O. H. S. DUNN,
Assistant Secretary.

Troja.—Meeting 14th March. Present: Messrs. E. Williams, Vice-President (in the chair); C. S. Byles, Instructor; 13 other members and many visitors. Arising from the minutes the proposed excursion to Grove Place was discussed. The Secretary reported that Mr. Baxter, Secretary of the J.AS. had written complimenting the members on the move and assuring them of his co-operation. The Instructor said that all the other branches in his area were willing to join in the trip, but the branches in Mr. Martin's area were unable to go on the day appointed. His suggestion to postpone the excursion was accepted. Messrs. Byles and Velvette made references to the death of Mrs. T. J. Cawley, and the Secretary was instructed to forward a letter of condolence to Mr. Cawley. The Instructor outlined his plan of work for the ensuing year. Discussion on the various items was deferred until the next meeting.

Troja P.O. A. E. Christie,
Secretary.

TRELAWNY: Bunker's Hill.—Seventh Annual Meeting, 4.4.35. Present: Mr. E. B. Pickering in chair, Instructor M. N. Thompson, W. D. Hill, Esq., M.P.B.; V. Gentles, Esq., M.P.B., W. H. Vickers, Esq.; the Secretary and 75 members and visitors. The question of a Post Office for the district was lengthliy discussed. A Committee was appointed to draft a petition to be sent to the Postmaster for Jamaica asking for one. 14 members renewed their membership. 7 new members were enrolled. 4 Authorized Persons reported all correct. The Secretary's report was read and the Treasurer's Cash Statement presented showing a balance of £1 19s. 7d. Officers were elected as follows:—Messrs. E. B. Pickering, President; J. E. Gale, 1st Vice-President; Wm. Lowe, 2nd Vice-President & L. S. Marston, 3rd Vice-President; P. H. Brown, Secretary and Treasurer (all re-elected); Robert Dunbar, Assistant Secretary. A vote of thanks was conveyed to all officers for the up-keep of the Branch during the past year. Instructor M. N. Thompson gave a very interesting lecture on the culture of Tomatoes with special reference to the "Marglobe Variety." He was thanked. A strong appeal was made for an increased membership and the meeting closed with the singing of the National Anthem.

Wakefield P.O. P. H. Brown,
Secretary.

Deeside.—Meeting, 3rd April. Present: The President, Mr. John Haye, Instructor M. N. Thompson and twelve members. This meeting was booked to be the Annual Meeting, but owing to the lack of a proper quorum it was postponed to May. The President welcomed those present and thanked them for their co-operation in carrying through a year's successful working of the Branch. Matters arising out of the minutes were discussed. The matter of a boar for the Branch was discussed and upon the advice of the Instructor, it was agreed to ask the Parent Society to book a young boar from Grove Place. Letters re main road passing through the district and re Show at May Pen were read. The President encouraged the sending of exhibits. One Authorised Person reported all correct. The Instructor lectured on the benefits of going in for tomato culture. He was heartily thanked for his efforts. The singing of the National Anthem brought the meeting to a close.

Deeside P.O. E. A. Morle,
Secretary.

Spring Garden.—Rock Spring.—Meeting 11th April. Present: Instructor M. N. Thompson, 11 members and 28 visitors. Mr. W. A. McDonald presided and after he resigned the chair was taken by Mr. P. L. Burnett, 1st Vice-President. The Secretary resigned and was succeeded by Mrs. M. N. Thompson. Thirteen members were enrolled, One Authorised Person reported all correct. The Instructor introduced three matters of vital importance.(a) A discussion meeting where friends could express themselves; (b) a Savings Bank; (c) a Social at the close of the year. Meeting was brought to a close by the singing of the National Anthem.

Albert Town P.O. L. C. Coy,
Secretary.

Ulster Spring.—Annual Meeting, 8.4.35. Rev. J. A. Edwards presided. Instructor M. N. Thompson was present and gave a splendid address on "Fowls." Election of Officers resulted as follows: President, Rev. J. A. Edwards, 1st Vice-President; Mr. J. McKenzie, 2nd Vice-President; Mr. A. B. South, Treasurer; Mr. H. L. Currie, Secretary; Miss I. C. Williams. The President gave a brief address on the past year's work. Report of the Secretary and Treasurer were read and adopted. There was a discussion on the proposed one-root treatment of Panama Disease re which a resolution that Trelawny be exempt from such treatment was unanimously carried. Mr. C. A. Neita gave some information about Water Rates. The Authorized Person present gave his report. The meeting adjourned after the singing of the National Anthem.

Ulster Spring P.O. I. C. Williams,
Secretary.

Waldensia.—Meeting, 11.4.35. Mr. J. A. Hines presided. He welcomed Mr. Arnett, M.P.B. and J. H. Beckford, Druggist and M.P.B. 3 Authorized Persons reported all correct; 1 helped in an arrest. The Secretary gave his annual report and was thanked. Rev. E. A. Jessop, M.A., Treasurer gave his report. Addresses were given by Mr. Arnett on Our Modern Industries, e.g. Soap, Ice, Matches, Butter and by Mr. J. H. Beckford on Agriculture, the oldest Industry. Electon of Officers: J. A. Hines, President; D. A. Beckford, I.V.P. (both re-elected); C. H. Smart, 2nd Vice-President; V. Williams, 3rd Vice-President; C. C. Lee, Secretary re-elected; Rev. E. A. Jessop, M.A., Treasurer re-elected. Eight new members paid fees. The National Anthem was sung. The members with their special visitors had a social. Bread, bun, cakes, biscuits, tea, aerated waters and other things were served freely and all had a very jolly time. This closed with the Doxology.

Sherwood Content P.O. C. C. Lee,
Secretary.

MANCHESTER: Pratville.—Meeting held 10.4.35. Present: Messrs. S. R. Wesley, President; H. A. Darby, Instructor; and several other members. Treasurer's Report showing £2 17/- in hand was presented and adopted. Election of Officers:—Mr. S. R. Wesley, President (re-elected); 1st Vice-President, Mr. Victor Marshall; 2nd Vice-President Mr. J. Swaby (re-elected); 3rd Vice-President, Mrs. K. Sampson; Treasurer, Mrs. L. Wilson (re-elected); Secretary, Mr. D. E. Dixon (re-elected). The President proposed that shears and a saw be purchased for use of Branch members. Secretary appointed custodian of tools. Instructor dealt with soils and manures. Rotation and nitrification. Suggested the keeping of a cow; pointed out how manure should be stored. Meeting adjourned.

Pratville. D. E. Dixon,
Secretary.

PORTLAND: Fair Prospect.—Annual Meeting, 15.4.35. There was a good attendance of members, visitors and school children. The Instructor was also present. A song was rendered by the school children. The matter of obtaining rat poison was dealt with. A recitation was next given by Miss G. Scale. Mr. G. M. Munroe moved a vote of thanks to the Society for its valuable help in getting the Water Supply for the district. He mentioned Mr. L. A. Wates, late Instructor, and Mr. John Panton (deceased), who played prominent parts in the agitation for the water. After discussion the Secretary was asked to thank the Parochial Board and point out that the Supply of water was not quite satisfactory. The Instructor said that children as well as adults should be warned not to waste the water. The house was again delighted by another song by the children and a recitation by Miss E. King. The Instructor in his address said he was pleased to see the large turn out and asked members to try and get in others and hoped that a Juvenile Branch would be started early. Votes of thanks were accorded the Instructor. A new member was enrolled. Another recitation was given by Miss M. Solomon. A vote of thanks was accorded Mr. Barrett for the getting up of the surprise programme. After the Secretary and President gave their reports the election of officers followed and resulted as follows: President, Mr J. C. Burke, 1st Vice-President; Mr. C. A. Smith, 2nd Vice-President; Miss M. E. Munroe, 3rd Vice-President; Mr. Woolnough, Secretary; Mr. M. A. Barrett, Assistant Secretary; Mrs. J. E. Barrett. The meeting was brought to a close by the singing of the National Anthem.

Priestman's River P.O. M. A. Barrett,
Secretary.

Maidstone.—Annual Meeting, 10.4.35. Present: Messrs. W. Harper-Watson, J.P., M.P.B.; Hony. President, V. Vincent Thompson in the chair; Instructor G. R. Graham,

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the Secretary, ten members and eighteen visitors including six juveniles. Apology for absence was submitted from Instructor D. A. Jones. The President addressed the house on the Branch's activities for the past year. He exhorted one and all to increase the membership to 100 during the current year. The Secretary tendered his annual report which was interesting and encouraging. Treasurer's report was also presented. Both reports were adopted and the officers thanked. Instructor Graham spoke on (a) Banana Borers, specimens of which he exhibited; (b) Citrus Pests. He was heartily thanked for his interesting and educative address. Mr. W. Harper Watson gave a very interesting address on the Jamaica Agricultural Society urging those present to join up and increase the membership. He promised to take members to Kingston to visit centres such as Citrus Packing House,and Soap Factory. Mr. Watson was heartily thanked for his address and his kind offer. Election of Officers resulted as follows: Honorary President, Mr. W. Harper Watson (re-elected); President, Mr. N. Vincent Thompson, 1st Vice-President; Mr. William Casey, 2nd Vice-President; Mr. Benjamin Somers (re-elected); 3rd Vice-President, Mr. J. E. Somers; Secretary and Treasurer, Mr. M. L. J. Williams (re-elected); Assistant Secretary, Miss Edna Thompson. A Managing Committee was appointed. A very interesting paper entitled ' Agriculture in Jamaica since 1494" was read by Mr. W. J. V. Williams. A programme of songs and recitations was rendered by the Misses Thompson who were thanked. The meeting terminated with the National Anthem after which refreshments were served.

St. Margaret's Bay P.O. L. I. Williams,
Secretary.

Claverty Cottage.—Meeting 13th April. Present: 12 members, 2 visitors, Instructor D. A. Jones and the Secretary. It was agreed that the Secretary be asked to inform the Parochial Board that the Colthirst Run Road was put through by free labour and request that the Board provide a grant for same; and that the M.L.C. be written to regarding the Driving Road to Thompson Gap and a Petition sent to the Government. Authorised Person Haase reported on his work. A Yam Competition was arranged. Three prizes will be given. The Parent Society will be asked for a donation to the Prize Fund. A Committee was appointed to look after the competition. The Instructor addressed the meeting on points in Citrus Culture and Vegetables. A Recruiting Crusade was formed to increase membership.

Skibo P.O. W. T. McKay,
Secretary.

ST. ELIZABETH: Pedro Plains Upper.—Annual Meeting, 5.4.35. Present: Rev. T. E. McKay, President; and others. The President in his address gave a retrospect of the previous year's activities and enunciated plans for the ensuing year. The Annual Report was stimulating. It showed that in 1934-1935, the Branch had secured a telephone station and a Juvenile Branch of 70 members was formed. There were free discussions on Peanut and Vegetable Growing. Resolutions to the Hon. the Director of Agriculture asking him to evolve a scheme whereby the Island could celebrate an "Agricultural Week," and one to place on record an appreciation of the services of Mr. P. W. Sangster for his help in securing the telephone station, were unanimously passed. The National Anthem ended the meeting.

I. S. Millard,
5.4.35. Secretary.

Brompton.—Meeting 25th April, 1935. Present: Messrs. J. E. Boothe, President; Hon. E. V. Allen, M. L. C.; 9 other members, a goodly number of the Juveniles and about 60 visitors, of which 5 subsequently became members of the Society. Arising from the minutes were the water problem and the telephone system. These were discussed with the Hon. Member for the parish. He gave a very interesting address. A vote of thanks was conveyed to the Hon. E. V. Allen. He announced that the land of Low Works was being observed by the Government as to its suitability for Land Settlement. Delegates were elected for the Half-Yearly Meeting of the Associated Branches at Lacovia. The billy was reported in good order and the boar was said to be fit for service. President gave report of the Branch for the past year. Election of Officers resulted as follows:—J. E. Boothe, President (re-elected); A. J. Haughtin, 1st Vice-President; G. W. S. Wynter, 2nd Vice-President; G. Wynter, 3rd Vice-President; E. A. Watson, Secretary (re-elected); Joscelyn Byrnes, Assistant Secretary; E. J. Smith, Treasurer (re-elected). Five new members were enrolled after which the meeting adjourned with the National Anthem.

Fyffes Pen P.O. E. A. Watson,
Secretary.

CLARENDON: Beckford Kraal.—Meeting 1.4.35. The President extended a hearty welcome to the members and visitors. The Secretary gave his yearly report and was accorded a hearty vote of thanks. Mr. D. Stone and Mrs. Parker both spoke on the usefulness of the Agricultural Society in a community. Three Authorised Persons.

reported vigilance but no arrest and one Authorised Person reported one arrest—prisoner convicted. The Instructor spoke on various topics e.g. "Pruning of Coffee," "Bananas." He called attention to misdirected efforts, re pruning, drainage, selection of plants. He spoke on the necessity of allowing bananas to be properly matured and also on the May Pen Show. Two new members were enrolled.The election of Officers resulted as follows: Mr. Ebenezer Gordon, President (re-elected); Mr. Alfred Smith, 1st Vice-President; Mr. Arthur Stewart, 2nd Vice-President;Mr. Charles Douglas, Treasurer (re-elected) Mr. T. B. Reeves, Secretary (re-elected). After minor matters were dealt with the meeting rose.

Beckford Kraal P.O. (Sgd.) T. B. Reeves,
Secretary.

Brandon Hill.—Meeting April 15. This being the last meeting of the Financial Year, when it is customary to arrange new plans for the proper working of the Society, there was a large turn out of officers, members and visitors. A concise and interesting report of the Society's work for the year was given. This showed marked improvement as compared with the previous year. The Secretary was thanked. Mr. J. E. M. Small gave a report from the C.B.A. A group of school children rendered a song. Five Authorised Persons reported no arrest. Their badges and handcuffs were in good order. A terse address, full of encouragement was given by Instructor Shirley. The Election of Officers was carried through. After the Roll Call, arrangements were made for the conveyance of exhibits and passengers to the May Pen Show. The meeting then adjourned after the National Anthem was sung.

Colonel's Ridge P.O. E. A. Graham,
Assistant Secretary.

Mocho.—Annual Meeting held 5th April. Present: Mr. T. A. Hall, President; 18 members and 2 visitors who became members. Authorized person reported all correct. Delegates to the C.B.A. were elected. The Secretary and Treasurer presented their annual reports which were adopted. The following officers were elected: T. A. Hall, President; W. M. Bartley, 1st Vice -President; H. C. Wint, 2nd Vice-President; H. G. Dunkley, Treasurer; R. D. Barnes, Secretary and Miss O. L. Dyer. Assistant Secretary. Competitors to the May Pen Show were instructed re exhibits. The President speaking on the past year's work expressed the hope that members would continue to co-operate, and increase the membership. The meeting adjourned with the singing of the National Anthem. Mocho P.O. (Miss) O. L. Dyer,
Assistant Secretary.

Tweedside.—Meeting 26.3.35. Present: Instructor J. W. Graham and several members. The Charity Organization whereby children of indigent parents can be helped to attend school was again given consideration. The Instructor and several members congratulated the Secretary on conceiving the idea. Officers were elected and a managing committee appointed. The Instructor in his address showed how to control the spread of the banana borer. He stressed the need for intensive cultivation and showed how fowls, rabbits, and goats can be used to add plant food to the soil to ensure good crops. The Secretary and President in thanking the Instructor for his very helpful advice urged on members the necessity of paying strict attention during their field work to the instructions given by the Instructor from time to time. After minor matters were dealt with the National Anthem brought the meeting to a close.

Alston P.O. E. W. Boyd,
Assistant Secretary.

Pleasant Valley.—Annual Meeting 16.4.35. Present: Mr. C. Newman in the chair, the Instructor and 11 other members. The Secretary read a letter from the Parochial Board stating that the P. V. Bridge was receiving attention also one regarding the road from Jacob Hut to Beckford Kraal, etc. The Officers for past year gave their addresses reporting progress for the year. Election of Officers resulted thus: Mr. C. Newman, President; Mr. C. C. Flyter, 1st Vice-President; Mr. Alfred Hayes, 2nd Vice-President; Mrs. A. A. Flyter, Secretary and Treasurer. The Instructor who was busy preparing the Nursery from early morning gave useful hints for the future prosperity of the Branch. Authorized Persons, reported all correct. The delegate to the Half-Yearly Meeting in Chapelton then gave his report fully outlining the day's work. He was accorded a vote of thanks. Meeting terminated with "The King."

May Pen P.O. (Mrs.) A. A. Flyter,
Secretary.

ST. ANN: Bamboo.—Meeting 30.3.35. Present: the President, Mr. P. N. Munro, several members and the Secretary. The President emphasised the need of the proper cultivation of all plants. Special mention was made of the Potato Blight and Panama Disease. Plans were made for the Annual Meeting on the 27th March. Fees for the Corn

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Competition were paid in. The blight on pimento was discussed and the quick spread gave cause for alarm. There were discussions re trenches on the clay soil. The 1st Vice-President handed out grains of Liberian coffee and asked all to have same planted. One Authorized Person reported an arrest. A pudding supplied by the 1st Vice-President was served. The National Anthem brought the meeting to a close.

Bamboo P.O. J. LOWE,
Assistant Secretary.

Claremont.—First monthly meeting held 4th April. Present: Major Moulton-Barrett, M.C., J.P., (President); Capt. Edward Townsend, J.P., M.P.B. and Rev. C. S. Cousins (Vice-President); Instructor C. V. Atkinson; Messrs. E. Arnett, K. M. deRoux, J.P., Rev. A. W. Finlayson, several other members and many visitors. The Instructor delivered an interesting and instructive lecture on the Growing of Irish Potatoes for which he was warmly thanked. Mr. Arnett in moving the vote of thanks mentioned that Revd. Lope, Mr. Wm. Cradwick, Teacher Reynolds of Mavis Bank and himself were the four persons largely responsible for introduction of the cultivation of Irish Potatoes into the Island. On the motion of the Secretary the President was heartily thanked for his deep interest in increasing the membership which was then 67 for his generous donation of 50/- and for the presentation of a lamp to the Branch. The singing of "The King" terminated the proceedings.

Claremont P.O. P. M. McCALLA,
Hon. Secretary.

Ocho Rios.—Annual Meeting 23.4.35. Present: Messrs. J. O'Meally, President; Hon. C. A. Little, Instructor C. V. Atkinson and many other members. The Secretary gave a report of the Branch for the year which was heartily received. The Treasurer's report was also presented. The President in his address regretted the poor attendance during the year but he trusted that there would be improvement. He mentioned a Prize Holdings Competition in the different parishes. The Hon. C. A. Little gave some encouraging words to the members and urged them to go on in spite of difficulties. He

advised interesting meetings as a means of obtaining good attendance. Officers were elected as also delegates to the Annual Meeting. The Instructor invited members to attend the meeting of the Association. A Resolution re Prize Holdings Competition was noted for submission to the St. Ann Association of Branches.

Ocho Rios P.O. (Miss) B. JACKSON,
Secretary.

ST. MARY: Belfield.—Annual Meeting April 9, 1935. Present: Instructor C. D. V. Henderson, P. R. Somers, President, and twelve members. Authorized Person reported one arrest. Election of Officers resulted as follows: Messrs. P. R. Somers, President; M. H. Helps, 1st Vice-President; A. Maxwell, 2nd Vice-President; J. R. Campbell, Treasurer; M. L. Rennalls, Secretary; G. M. Duncan, Assistant Secretary. Instructor gave encouraging address outlining benefits derived from being a member of the Society. Subscriptions were taken and the Agenda arranged for next meeting. Instructor promised to visit holdings of two members in the district. The singing of "The King" brought the meeting to a close.

Belfield P.O. M. L. RENNALLS,
Secretary.

Epsom.—Annual Meeting April 3. Present: Instructor C. D. V. Henderson who was demonstrating on the holding of Matthew Thompson. The Secretary and the Treasurer gave their annual reports. Mr. W. G. Simpson was re-elected President; Mr. A. C. Gibson, 1st Vice-President; Mr. W. W. Hinds, 2nd Vice-President; Fred. A. Edwards Secretary and Mr. Edward Allen, Treasurer. Mr. Wm. Smith, Assistant Secetary, A Committee was also appointed. Instructor gave a beautiful i[illegible] nd officers gave addresses after which the meeting ended with the singing of the National Anthem.

Annotto Bay P.O. FRED A. EDWARDS,
Secretary.

Central St. Mary.—Meeting 4.4.35. Present: Rev. T. H. Grant, President, Instructor Henderson, Mr. J. A. Banks, Ex-Instructor and fourteen others. Correspondence was dealt with and three new members were enrolled. Reports were received from the Secretary and the Treasurer. The latter showed a balance in hand. A musical item was rendered by Mr. C. L. Williams and the Instructor lectured on "The benefits derived from the Agricultural Society." The officers were re-elected *en bloc* and the Chairman gave his closing remarks, after which the meeting was brought to a close by the singing of the National Anthem.

Richmond P.O. C. L. WILLIAMS,
Hon. Secretary.

Hampstead.—Meeting April 27. Present: Mr. T. D. H. Willis, 2nd Vice-President presiding and 6 other members. Correspondence was dealt with. Regarding Giant Plantain suckers, members decided to obtain six. The Secretary gave his 8th Annual Report of the Branch and showed a balance of 7/7 to the credit of the Branch. The Report was adopted. A purse and an address were given to the Secretary for his invaluable services. The Secretary replied suitably. Election of Officers resulted thus: President, H. W. R. Scott, Esq.; C. E. Nicholson, Esq., 1st Vice-President; Messrs. T. D. H. Willis, 2nd Vice-President (re-elected); Mr. S. A. Crebb, 3rd Vice-President; Messrs. T. M. Bennett, Secretary and H. G. White-Davis, Assistant Secretary (re-elected). The Secretary was asked to write the M.O.H. re pollution of water in the area. The Secretary explained fully the significance of the Silver Jubilee. Discussion of the Instructor's suggestion to acquire a piece of land to help the Society financially was deferred. Meeting closed with the singing of the National Anthem.

Hampstead P.O. H. G. A. WHITE-DAVIS,
Reporting Secretary.

HANOVER: Hopewell.—Meeting 12th April. Present: Rev. Wm. Christie, Hon. President; J. N. Atherton, President; Major Pease, member of the Board of Management, J.A.S., Instructor Hastings and twenty-three other members and a number of visitors and school children. The President extended a hearty welcome to all. Rev. Christie in a brief interesting address pointed out how the Branch meeting could be made attractive. As arising out of the minutes, the Secretary read correspondence from the Parochial Board re the residence for the newly appointed D.M.O. of Windward, Hanover. Their suggestion that the petition be sent to the S.M.O. was accepted and the Secretary instructed to forward same. The Secretary's and Treasurers' reports were read and adopted. Major Pease gave a short address in which he made reference to the abolition of the 9-root system re the Panama Disease, Cattle and Dairy Industry and Banana Insurance. He also dealt with Local arrangements in connection with the King's Jubilee Celebration and stressed the importance of the D.M.O. for the Windward Division of Hanover remaining at Flint River instead of being transferred to some out-of-the-way place. The election of Officers resulted thus: President—Mr. J. N. Atherton, Vice-Presidents: Messrs. W. H. Rigg, J.P., O. C. Donaldson, J.P.;

B. H. Irving, Secretary; Mr. C. S. Morrison, Assistant Secretary, Miss E. E. Samuels. The usual votes of thanks were moved and the meeting adjourned.

Hopewell P.O. C. S. MORRISON, Secretary.

ST. JAMES: Roehampton.—Meeting 13th April. All the officers were present, 17 other members and Instructor Marr. The President, Secretary and Treasurer presented reports. The Treasurer's report showed a balance to the credit of the Branch, of £2 7s.1½d. The Officers for 1935-36 were elected as follows: Mr. J. N. Tharpe President; Mr. Reggie Heron, 1st Vice-President; Mr. W. Plummer, 2nd Vice-President; Mr. A. A. Plummer, 3rd Vice-President; W. E. Bennett, Treasurer; J. Aug. Rhoden, Secretary. Mr. Marr gave a very instructive address on the importance of small stock. Resolutions dealing with the springs in the district and the Parochial Roads were adopted to be discussed at the Half-Yearly Meeting of the Associated Branches of St. James. Two new members were elected. Auditors were appointed, also delegates to represent the Branch at the Half-Yearly Meeting of the St. James Branches Associated. The meeting closed with the singing of the National Anthem.

Anchovy P.O. J. AUG. RHODEN, Secretary.

Salt Spring.—First Annual Meeting 10.4.35. Present: Mr. G. W. Anglin, in the chair; Instructor W. D. Marr, 20 members and many visitors. It was decided to send a resolution to the next Half-Yearly Meeting of the Society on the advisability of having a scheduled price for crops destroyed, so that valuators may be guided thereby. Election of Officers resulted as follows: Mr. Robert Clarke, 1st Vice-President; Mr. M. East, 2nd Vice-President; Mr. Chas. Richards, 3rd Vice-President; Mr. E. Allen, Treasurer and Mr. Llewe. E. Dillion, Secretary re-elected. The Secretary thanked the members for his re-election and gave a synopsis of the year's work. He stressed the importance of continued co-operation and invited many lady visitors to become members. The Instructor dealt with the importance of manures, special and general. He said inter alia that use should be made of the general manures, so plentifully found in Jamaica before resorting to special fertilizers. There should be also a chemical analysis of the soil before a special application is made. Authorised Persons reported no arrests. The National Anthem terminated an interesting meeting.

Salt Spring P.O. LLEWE. E. DILLION, Secretary.

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Other Reports Received.

Branch.	Date of Meeting.	Attendance.	Business.	Secretary.
St. James. Bickersteth ..	4.4.35	16	Election of Officers. Water Supply. Seed distribution Juvenile Branch.	Leo. A. Spence
St. Ann. Bohemia ..	28.3.35	18	Discussion on Ginger Industry. Banana Borer. Address by Instructor Thompson. Authorized Persons.	V. C. Robinson
Manchester. Comfort Hall ..	12.4.35	25	Vegetable Show. Penny Bank. Election of Officers. Authorized Persons. Address by Instructor Thompson.	W. A. White.
St. Mary. *Baxter's Mtn.* ..	*16.4.35*	..	Authorized Persons. Water Supply. Ex Soldier's settlements. Address by *Instructor Henderson.*	R. J. Lawson Ricketts.
Lucky Hill ..	16.4.35	22	Cemetery. Banana S 19. Vegetable Industry. Authorized Persons. Election of Officers.	F. Wright Geoghaghan.
Turnberry ..	27.3.35	25	Post Office. Ram. May Pen Show. Reports from Secretary and Treasurer. Election of Officers. Juvenile Branch.	E. L. Welds.
Marlborough ..	23.4.35	9	Arrangements for Annual Meeting. Authorized Persons. Address by Instructor Henderson.	S. Aug. Ford.
Portland. Belvedere ..	10.4.35	20	Reports from Secretary and Treasurer. Election of Officers. Authorized Persons. Address by Instructor Jones	L. C. Blair.
Moore Town ..	2.4.35	..	Authorised Persons. Reports by President and Treasurer. Election of Officers.	(Miss) J. A. Harris.
St. Elizabeth. Bull Savanna ..	12.4.35	nearly 200	Tobacco Industry. Bombay Mango Plants. Report by Secretary. Election of Officers. Addresses by Mr. Blackwood and Instructor Lynch.	(Miss) E. C. Royal.
Malvern ..	22.3.35	20	Vegetable Competition. Reports by Secretary and Treasurer. Coffee Competition. Election of Officers. Talk by Instructor, Messrs. Negus and R. Salmon.	(Miss) E. I. Blake.
Pepper ..	20.3.35	9	May Pen Show. Address by Instructor Lynch.	(Mrs.) M. A. Atkinson
Springfield ..	5.4.35	14	Election of Officers. Report by Treasurer. Demonstration Plot. Spray Pump. Land Settlement.	J. A. Woodstock
Kilmarnock ..	9.4.35	17	Election of Officers. Water Supply. Road. Authorised Persons. Address by Secretary.	J. E. Monteith

Other Reports Received, Contd.

Branch.	Date of Meeting.	Attendance.	Business.	Secretary.
St. Catherine.				
O'Meally ..	28.3.35	25	Water Supply. Authorised Persons. Address by Instructor Byles.	Amos Henry.
Princessfield ..	29.4.35	..	Election of Officers. Address by retiring President	P. G. C. Graham
Victoria ..	18.4.35	..	Water Supply. Authorized Persons. Reports from President, Secretary and Treasurer. Ginger Cultivation. Election of Officers.	Miss M. L. Burrell.
St. John's Lower	1.4.35	35	Land Settlement Scheme. Address by Instructor. Election of Officers.	T. Z. Gordon.
Clarendon.				
Rock ..	27.3.35	40	Address by Mr. Coleman. Railway Siding at Rock. Report from Treasurer. Authorized Persons.	H. D. Thomas.
Trelawny.				
Wait-a-bit ..	10.4.35	16	One Root Treatment of Panama Disease. Annual Report. Election of Officers.	I. L. Rogers.
Wakefield ..	2.4.35	..	Annual Report. Penny Bank. Election of Officers. Authorized Persons. Address by Instructor Thompson.	E. S. Bliss.
Warsop ..	16.4.35	14	Election of Officers.	U. K. Walters.
Wilson's Run ..	9 4.35	72	Address by Instructor Thompson. Secretary and Treasurer's reports. Election of Officers. Authorized Persons' report.	G. E. Bailey.
St. Andrew.				
Content Gap ..	27.4.35	11	Annual Report. Water Famine. Election of Officers. Address by President.	F. A. Wilson.

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The more people do the more they can do; he who does nothing renders himself incapable of doing anything; while we are executing one work we are preparing ourselves for undertaking another.

Vol. XXXIX. JUNE & JULY, 1935. Nos. 6 & 7.

BOARD OF MANAGEMENT.

The regular monthly meeting of the Board of Management of the Jamaica Agricultural Society was held at the office of the Society, 11 North Parade, Kingston, on Wednesday, 1st May, 1935, at 11.15 a.m. There were present: Mr. T. J. Cawley, First Vice-President in the chair, Hon. George Seymour Seymour, Third Vice-President, Hon. A. C. Barnes, Director of Agriculture, (*ex officio*), Messrs. Sidney Barton, C. O. Cover, H. E. Lewis, T. P. V. McDaniel, U. Theo. McKay, D. D. Phillips, W. Harper Watson and T. R. Williams, Mr. P. St. L. Bacquie, Supervisor of Instructors and the Secretary, Glaister Baxter.

Apologies for Absence.—

Apologies for absence were submitted from Major G. B. Pease and Mr. S. M. Walker.

Confirmation of Minutes of Meeting held 3rd April, 1935.—

Copy of the minutes of the last regular meeting held 3rd April, having been sent to each member of the Board, they were taken as read and on the motion of the Hon. Mr. Seymour, seconded by the Chairman, they were confirmed.

Confirmation of Minutes of Meeting held 17th April, 1935.—

Copy of the minutes of the meeting held on the 17th April, having been sent to each member of the Board, they were taken as read.

Mr. Cover entered a protest in regard to the minutes which recorded the introduction of a matter having reference to the appointment of the Supervisor to the whole Island which had not appeared on the Agenda of the original meeting or on that sent out notifying the holding of a special meeting.

An amendment substituting the word "adjourned" for the word "special" on the first page of the minutes was made and the minutes were then confirmed.

The protest entered by Mr. Cover was noted for record.

Citrus Industry.—

The Director of Agriculture asked permission to move the suspension of the Standing Orders to bring to the attention of the Board the matter of the criticism which he stated has been levelled against plants sent out from the Government citrus nurseries, resulting in a feeling of distrust of the quality of the plants. This he said was entirely unfounded. Examination of the nurseries and of the majority of the areas where the plants sent out had been grown would show that the plants were sturdy well grown and entirely suitable for distribution. There was one nursery where unsuitable soil conditions prevented the plants from getting the best formation, but no plants had been issued from that nursery. He instanced one case where unfortunately in-

structions issued with the plants had not been observed and far too much watering had been done resulting in the rotting of the roots of the plants. This he stated had been the reason for someone not unconnected with the Society, concluding that the plants had a very poor root system, and from that isolated circumstance the rumour had emanated. He wished to emphatically correct the misapprehension and would be grateful if anyone making a complaint was referred to him when he would immediately send a competent officer of the Department to investigate the position. Over 10,000 plants had been issued and of these considerably less than five per cent. had failed, and for any case of failure new plants had been issued free of charge.

Mr. Barton seconded the motion and stated that he had received plants from the Government nursery and they had been first class plants and the attention he received from the Department could not have been better.

Mr. McDaniel stated that he had had experience of some plants from the Government nursery with defective root system. He had also been told by an officer of the Jamaica Agricultural Society that an officer of the Department of Agriculture had requested him to meet him during the present season which was exceedingly dry to set out citrus plants. He had advised the officer of the Society to consult the Secretary as he personally thought it inadvisable to set out plants during the existing dry season.

Mr. McKay said he had had successful results with plants from the Department of Agriculture and when travelling he had found people loud in praise of the work that was being done by the Department for the Citrus Industry. At the same time he hoped the Director would not object to wholesome criticism of himself or the Department as this criticism was not meant to be destructive.

Mr. Barnes said he was not aware that a member of the Board had any connection with the matter.

He then with the permission of the Board, withdrew the motion.

Deputation on Tobacco Industry (Stony Hill Branch.)—

The Secretary stated that as directed he had issued copies of the Memorandum from the Stony Hill Branch to members of the Board on the subject of the Tobacco Industry.

The deputation then waited on the Board. The following were the members: Mr. L. H. Sherwood, Chairman, Messrs. H. Leo. Brown, T. Gondres, A. P. Hanson, A. O. Soutar and G. Rennie.

Mr. Sherwood outlined the matter to the Board and was supported by Messrs. Soutar, Gondres, Brown and Hanson.

Samples of cigarettes, cigar tobacco and cured tobacco leaf were presented to the Director of Agriculture during the proceedings.

The Board discussed the matter with the members of the deputation and promised to communicate with the Government and find out what steps they intended to take in view of the work of the Special Committee which considered the question of the Tobacco Industry and submitted their report to the Legislative Council during the Autumn Session of 1934.

The deputation thanked the Board for the audience and retired.

The Director of Agriculture and Mr. Seymour left.

Deputation from Beekeepers Committee re dismissal of Mr. Coote.—

The Board then received a deputation consisting of Mr. J. H. Blackwood, Chairman, and Messrs. L. H. Sherwood, I. B. Reid, C. E. Hunt, Cohen, Frankson, McCormack and Aitken.

r. Blackwood said the deputation represented hundreds of bee-ers throughout the Island. It was the result of a meeting of eepers held on the 3rd April who desired the audience with the Board. e then set out the case before the Board and asked that they re-ider the decision they had made to dispense with Mr. Coote's ces and reinstate him in the position of Instructor in Beekeeping h was the desire of the beekeepers who had sent the duputation veral members of the deputation spoke emulating the work of Coote as an Instructor in Beekeeping.

e deputation then thanked the Board for the audience and withdrew.

e Director of Agriculture came in towards the conclusion of the ence.

er from Mr. McArthur.—

e Secretary brought to the attention of the meeting that Mr. rthur had written asking that the Board allow him an interview iscuss with them the matter of the one-root system of treating ma Disease of bananas.

e Secretary was directed to invite Mr. McArthur to attend at the ar monthly meeting in June.

the motion of Mr. McKay, seconded by the Chairman, the meeting adjourned to Wednesday the 15th May, at 11.30 a.m.

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e adjourned meeting of the Board of Management of the Jamaica ultural Society was held at the Office of the Society, 11 North de, Kingston, on Wednesday, 15th May, 1935, at 11.30 a.m. e were present: Mr. T. J. Cawley, First Vice-President, in the r; Rev. W. J. Thompson, Second Vice-President; Messrs. Sidney on, C. O. Cover, H. E. Lewis, T. P. V. McDaniel, U. Theo. McKay, . Phillips, S. M. Walker, W. Harper Watson and W. H. W. West-and; Mr. P. St.L. Bacquie, Supervisor of Instructors and the tary, Glaister Baxter.

ogies for Absence.—

ology for absence was submitted on behalf of Mr. P. W. Sangster.

ters arising out of the Minutes of meetings held 3.4.35 and .4.35.—

Statement by Secretary was presented as follows:—

Board of Management: 50th April, 1935.

entlemen:

ers were written to the Chairman of the Advisory Board under the Agricultural ce Law and the Inspector General of Police suggesting the date of the June regular g of the Board for the suggested conference with the Board on the question of the amendment to the Agricultural Produce Law. No replies have yet been received.

d to cancel my country appointments during week ending 27th April due to an of malaria fever.

s absent from office on Thursday and Friday, 25th and 26th April.

clock as directed has been installed.

Bacquie has been instructed to assume his additional duties as from the 1st May.

transfer of instructors Henderson and Jones have not yet taken place due to uent correspondence that developed and which was placed before the Instructors ittee this morning.

other correspondence consequent on the deliberations of the Board at their last eetings have been carried through.

(Sgd.) Glaister Baxter,
Secretary.

. Thompson moved the suspension of standing orders in order the report of the meeting of the Instructors' Committee held on st May which covered the recommendations regarding the removal rtain Instructors be considered. This was seconded by the Chair-and carried.

e Secretary read the report as follows:—

10th May, 1935.

To the Board of Management.

Gentlemen:

Your Instructors Committee met on the 1st May, 1935, and beg to make the following recommendations:—

1. That the Secretary make a synopsis of the Instructors' Reports on the progress of the ex-B.W.I.R. Land Settlement Schemes and forward same to the Government.

2. That citrus buds used by Instructors should be obtained from their sources of supply by Instructors to ensure that the varieties being used are the correct ones.

3. That the following Branches be granted affiliation—Alston (Clarendon), and Whitehorses in St. Thomas.

4. That the transfers of Instructors Jones and Henderson be reconsidered. On the presentation of a letter from Mr. S. M. Walker, this matter was carefully gone into by the Committee and they now recommend that Instructor Henderson be transferred to St. Andrew vice Mr. Miller and Instructor Jones be transferred to Eastern St. Mary vice Mr. Henderson.

(Sgd.) GLAISTER BAXTER,
Secretary of the Committee.

Mr. Thompson moved that the report be adopted.

This was seconded by Mr. Watson.

Mr. McDaniel expressed disapproval of the recommendation regarding Citrus Buds. He suggested that there should be approved sources of supply, and the carrying out of the recommendation would entail hardship and expense.

The report was adopted, Mr. McDaniel voting against it.

(b) *Letter from Elected Members Association.*—The Secretary read letter from the Secretary of the Elected Members' Association dated 30th April, 1935, making an appointment with the Deputation from the Board of Management for 5 p.m. on the 1st May.

The Secretary stated that there was subsequent correspondence resulting in the postponement of the original appointment to 5 p.m. on that day, the 15th May.

Replies to Mr. McKay's Questions.—The Secretary read questions and answers as follows:—

Question 1. Is the recommendation of the Planning Committee as to the putting of instructions on packets of seeds regarding methods of planting being carried out?

Answer.—Arrangements have been made to do so, but we were working off the large stock of seed envelopes of the old type we had in hand. Seed envelopes of the new type are being printed.

Question 2.—Will this Society take the necessary steps to investigate and report to the Board of Management at its June meeting at latest the cause of the drop in the export of coffee for 1934.

Answer.—Investigation points to the fact that the weather conditions of the latter part of 1933 and the earlier part of 1934 was conducive more to the vegetative growth of the coffee plant than to its profuse blossoming and also that the blossoms were adversely affected by the wet weather prevailing at the time. The actual crop produced was considerably less on account of the reasons given above, and further, much of the coffee produced later in the year was held in the hands of both growers and dealers due to the sudden and material drop in price that took place in the latter half of 1934. It will be seen that not only was the crop produced considerably smaller, but that considerable portions of this crop was not exported up to the end of the year.

Question 3.—Will the Society get figures if possible showing the amount of rice produced locally during the year 1934, and further see these figures are procured yearly.

Answer.—From information gathered it is estimated that the rice crop of Jamaica for 1934, was approximately 10,000 bags of dahn (paddy): bags contain 100 quarts, weighing approximately 150 pounds each. The recovery of clean rice from paddy is about 40%. A lot of this rice is consumed as paddy for poultry and stock feed.

There is no accurate means for arriving at agricultural statistics in the colony and if figures are to be procured in future, such figures can only be estimates.

Question 4.—Can the Society make enquiries concerning the prices paid to members of the Citrus organization?

Answer.—If a resolution is passed by the Board directing the Secretary to apply to the Citrus Producers Organisation or to the contractors of the Citrus Organisation for information regarding the price paid and received for citrus supplied to the Organisation, the enquiry can be made.

The Secretary was instructed to circulate the questions and answers to the Members of the Board.

Mr. Cover said that he had asked for information regarding visits made to holdings and mileage covered by Instructor Byles some time ago, but he had had no reply.

The Secretary was instructed to supply the information.

Deputation re Dismissal of Mr. Coote.—

The Chairman stated that at the last regular meeting of the Board a deputation from a Beekeepers Committee waited on the Board. He wanted to know if it was the pleasure of the Board that the matter should now be deliberated on.

On the motion of Mr. Barton seconded by Mr. Phillips it was decided that the matter be dealt with.

The Chairman outlined briefly the history of the circumstances leading up to Mr. Coote's dismissal.

At the request of the Chairman the Secretary outlined the results of legal advice taken by him from Messrs. Manton & Hart consequent on the receipt of certain letters from Messrs. Snaguinetti and Sanguinetti, who had been consulted by Mr. Coote with reference to his dismissal. He also stated that Mr. Coote had advised him by telephone on the 1st of May that he was available for service with the Society and he, the Secretary, had advised him at the same time that he had no authority to consider him an employee of the Society.

The Rev. Mr. Thompson asked the following questions and obtained the following answers from the Secretary:—

Question.—Is Mr. Coote in our service?

Answer.—I have given him no orders, and have informed him that I do not consider him an employee of the Society.

Question.—Have you any information as to whether he is in actual service now?

Answer.—I have no such information.

Question.—Has he sent in any reports, as in the past, of his movements, and what he has done?

Answer.—No.

Question.—Have you received any communication from him in writing since he has returned, that he is going to take charge?

Answer.—He did not report that he was going to take charge. He said he was available for duty.

Question.—Since then have you received any report of his activities?

Answer.—No.

In reply to Mr. Barton's question the Secretary advised the Board that the apiary had not yet been removed but that the Society were tenants on the lands, paying rent for it, and that he did not know as a fact that Mr. Coote was doing any work on the apiary.

Mr. McKay said that as he understood the matter they were only considering now what reply should be sent to the deputation that waited on them on the 1st of May asking that Mr. Coote be reinstated.

Mr. Walker moved that the Board go into Committee to consider the question.

This was seconded by Mr. Phillips and carried.

In answer to a question, the Secretary stated that the First Vice-President and himself had had an interview with the Hon. Colonial Secretary the day before he sailed for England on vacation, but nothing definite was then decided on.

The Board discussed the matter on the charges that had been brought against Mr. Coote, the findings of the Enquiry Committee, and the termination of his employment as also the representations made by the deputation which waited on the Board on the first of May.

Mr. Phillips spoke in favour of Mr. Coote's reinstatement and was supported by Messrs. Barton, Cover and McDaniel.

Mr. Phillips then moved:—"That in view of the appeal and representations made to the Board praying that Mr. Coote be reinstated, that the request be granted and Mr. Coote reinstated.

This was seconded by Mr. H. E. Lewis.

Mr. McKay said that whether their original decision was arrived at in a thin house or not, the dismissal of Mr. Coote was carried out in a proper manner, and six months not having elapsed nothing should now be done.

Mr. Cover said that the discussion arose out of their receiving a deputation and if that was not in order they should not have allowed it.

The Chairman pointed out that by rule, unless there was a two-thirds majority of those present voting for re-opening the matter he could not put the resolution to the meeting.

Mr. Thompson said that the Board should have told the deputation that the matter having been decided nothing could be done under six months, but they having allowed the matter to be re-opened by giving audience to the deputation, the matter was already re-opened.

The Secretary pointed out that by rule the reopening of a matter that had been decided before six months had expired necessitated a two-thirds majority vote, but that having obtained this two-thirds majority the rule did not call for a two-thirds majority to pass any resolution reversing a decision.

The Chairman then asked the Board to vote on the question of whether the motion should be put.

The voting resulted as follows:—Ayes: Messrs. Phillips, Barton, Cover, McDaniel, Watson, Walker and Lewis. Noes: Rev. Thompson, Messrs. McKay and Westmorland and the Chairman.

Mr. McKay said that the required two-thirds majority had not been obtained.

The Chairman ruled that there was a two-thirds majority vote and declared the motion carried.

The motion to reinstate Mr. Coote was then put and carried, seven members voting for and four against it.

The Chairman declared the motion carried.

On the resumption there were present: Rev. W. J. Thompson, in the Chair, Messrs. McDaniel, McKay, Phillips and Walker, the Supervisor of Instructors and the Secretary.

As at the adjournment the Board was in Committee, Mr. Walker moved, seconded by the Chairman that the Board resume.

This was agreed to.

Mr. Walker then moved that the decision arrived at by the Board in Committee be now approved.

This was seconded by the Chairman and carried.

Matters left over from Adjourned Meeting, 17.4.35.—

(a) *Banana Insurance: (i)) Report from Committee.*—The following report was presented:—

Members of the Board of Management: 2nd April, 1935.

Your Committee appointed to consider the Banana Restoration Report of the Select Committee of the Legislative Council met on Tuesday, 2nd of April, and did so. They were not unanimous in their opinions on the matter. Two suggestions were considered by the Committee and they feel that they should leave the choice of accepting one of them to the discretion of the Board. The suggestions appear hereunder:

Suggestion 1: Banana growers to be forced by law to create a fund by a cess of 2d. per payable to the extent of £500,000. Should there be a calamity before this amount is reached the Government should guarantee the amount required for restoration limited to a sum not exceeding £5 per acre, an acre the equivalent to the production of 120 counts. After the fund of £500,000 is reached the cess should still continue but any amount over

and above £500,000 to be refunded to the first year contributors to the fund, and so on from year to year. Such refunds to be pro rata to the individual contributions of growers.

Suggestion 2: An agreement in general with the report of the Select Committee of the Banana Industry dated 12th November, 1934, except in so far as the recommendations of payment to growers whose fields may be damaged by storms and other calamities. A portion of the contribution of growers, say 75%, should be given back to them for the purpose of resuscitating their fields and a sum should be guaranteed by Government from which loans should be made on proper security to provide the growers with a sufficient sum for the restoration of their fields at the rate of £5 per acre.

(Sgd.) GLAISTER BAXTER.
Secretary of the Committee.

Mr. McDaniel moved that Suggestion No. 1 be adopted. This was seconded by the Chairman and carried, four members voting in favour.

(ii) *Letter from Mr. J. B. Kilburn* of the Confederation Life Association of Canada was submitted covering a scheme for the creation of a provident fund for the restoration of Banana cultivations in Jamaica in the event of storm damage.

The Secretary was instructed to forward the Scheme to the Government.

(b) *Letter from President Westmoreland Branches Association.*—The Secretary stated that the letter from the President of the Westmoreland Branches Associated complaining that Instructor Kelly had made arrangements for the meeting of the Westmoreland Branches Associated without consulting him as the President was dealt with at the last meeting of the Instructors' Committee. That Committee recommended that a copy of Instructor Kelly's letter of explanation be sent to the President Mr. M. Segree, with a covering letter stating that no harm had been intended by the Instructor and that it was hoped that the pleasant associations that existed between the President and the Society would continue.

This was endorsed by the Board.

(c) *Report on Tree Planting.*—The Secretary placed on the table the Report on Tree Planting in St. Andrew for the half-year ending 31st December, 1934, submitted by Instructor Hanson and stated that a copy had been forwarded to the Hon. Acting Colonial Secretary.

This was noted.

(d) *Resolution from Ulster Spring Branch re One Root System.*—Resolution from the Ulster Spring Branch was submitted recording its strong protest against the adoption by the Government of a universal one-root system for the treatment of Panama Disease and requesting that the parish of Trelawny be exempted.

The Secretary was instructed to forward a copy of the resolution to the Advisory Committee on the Banana Industry, and to advise the Ulster Spring Branch that the Board had not been informed by the Government that it was their intention to adopt treatment of Panama Disease by the one-root system throughout the Island.

Mr. Lewis came in.

(e) *Resolution from Birnamwood Branch re Road.*—This resolution requested that the Government be asked to grant a subsidy to Parochial Boards (especially Portland) so that Parochial Roads in general may be maintained and kept in better condition.

The Secretary was instructed to forward same to the Colonial Secretary.

(f) *Resolution from O'Meally Branch re Tuberculosis and Smoking* was submitted and tabled.

(g) *Resolution from O'Meally Branch re Water Supply.*—This resolution asked that immediate steps should be taken to relieve the inhabitants of the difficulty they experience in obtaining water from the spring—their only source of water supply.

The Secretary was instructed to forward the resolution to the St. Catherine Parochial Board.

Statements of Accounts.—

(a) *Statement for March.*—The Secretary stated that the Statement of Accounts for March appeared in the Minutes.

(b) *Statement for April* was presented as follows:—

STATEMENT OF ACCOUNTS—APRIL, 1935.

Receipts.	Estimates. £ s. d.	Total. £ s. d.
To Subscriptions	175 0 0	15 2 8
Affiliation and Journal Fees	175 0 0	13 19 0
Advertisements in the Journal	350 0 0	13 10 0
Miscellaneous	10 0 0	0 6 6
Bee Industry Sales	30 0 0	1 6 0
Sales Dept. Profits 1935-36	400 0 0	..
Government Grant	9,500 0 0	791 13 4
Grant of Bee-keeping Industry	500 0 0	41 13 4
Appropriation from Sales Dept. Surplus	657 5 0	..
	£11,797 5 0	877 10 10
Balance from 31st March, 1935	..	781 7 7
Agricultural Shows	..	4 0 0
Seeds Trading Account	..	330 13 5
		£1,993 11 10
Less Expenditure (Contra)	..	1,474 17 7
Balance	..	£518 14 3
Cash in hand	2 15 3	..
Cash at Barclays Bank (C. C. & O.) Current A/c	168 10 5	..
Cash at Royal Bank of Canada, Current A/c	347 8 7	£518 14 3

Expenditure.	Estimates. £ s. d.	Total. £ s. d.
By Personal Emoluments:—		
Secretary and Office Staff	2,117 5 0	168 13 8
Instructors and Supervisor	7,671 0 0	889 13 4
Instructors Course at Hope	125 0 0	..
Instructors Tools and Contingencies	75 0 0	14 12 1
Secretary's Office and Special travelling	100 0 0	7 11 4
Printing and Stationery	100 0 0	6 2 2
Printing and issuing Journals and Reports	800 0 0	77 6 4
Rent and Rates	58 0 0	4 0 0
Rent of Telephones	27 0 0	2 4 0
Postages and Telegrams	10 0 0	1 13 2
Office Equipment, Maintenance and Repairs	15 0 0	..
Incidentals	50 0 0	8 7 1
Auditors' Fees	25 0 0	..
Library Books	10 0 0	2 18 10
Show Equipment Repairs and Maintenance	10 0 0	2 5 4
Experiments Bombay Mango Industry etc.	100 0 0	6 12 3
New Office Equipment	40 0 0	..
	£11,333 5 0	£1,191 19 7
Bee-keeping Industry	500 0 0	45 8 0
	£11,833 5 0	
Agricultural Shows: Advances for Printing etc.		15 17 0
Plant Diseases Control		1 4 8
Seeds Trading Accounts	..	220 8 4
		£1,474 17 7

(Sgd.) GLAISTER BAXTER,
Secretary.

(Sgd. DONALD McDONALD,
Accountant.

Mr. Phillips moved the suspension of the standing orders to bring forward the following resolution, notice of which had been given at a previous meeting:—

"That the Government be asked through the Director of Agriculture for a grant of 1,000 citrus plants from the Nursery as a gift to the people of Harmons whose citrus trees have been devastated by the recent over-flooding of water during the past year these plants to be supervised by the Agricultural Instructors."

This was seconded by Mr. Lewis and carried and the Secretary was directed to deal with the resolution.

Messrs. Westmorland and Cover came in.

Communications.—

(a) *Letter from Messrs. Manton & Hart.*—The Secretary stated that during 1934, someone endeavoured to claim for alleged damage done to property through the spraying of potatoes by an Agricultural Instructor. He (the Secretary) was instructed to get a form drawn up which would indemnify the Society in cases of the kind.

He had referred the matter to Messrs. Manton & Hart and the outcome was the following letter:—

71 Barry Street, Kingston,
April 15th, 1935.

"We have before us what purports to be the Rules and Bye-Laws of the Jamaica Agricultural Society and note the scope of its activities.

In accordance with your instructions, we have been carrying out investigations with view to ascertaining under what Law, if any, the Jamaica Agricultural Sodiety is constituted or registered.

A perusal of the Mimutes of the Legislative Council debates of 1895 disclose that the Society was formed in that year on the suggestion of the then Governor, and that the Council voted a sum of £1,000 to assist with its expenses. The Governor, the Elected Members of the Legislative Council and certain persons nominated by the Governor constituted the Board of Management. From year to year the Legislative Council voted a subvention to assist the Society.

We traced the development of the Society by reference to the old Handbooks of Jamaica, which disclose that in 1904 the constitution of the Society was altered. We have been unable to obtain the original or copy of the amendments of 1904, and understand that this is due to the fact that the records of the Society were burnt a few years ago.

We can find nothing to indicate that the Society was created by any Law or registered under any Law; the Society as such has no legal entity and it is possible that each member of the Society would be held personally responsible for any acts of the Society's employees acting within the scope of their employment, and for the due performanace of any obligation undertaken in the name of the Society.

We consder the legal position of the Society and its members unsatisfactory, and would advise that the Government be approached with a view to legalizing any past *ultra vires* acts of the Society and its members, and establishing the Society as a legal entity, whereby its members are exempt from personal liability for any matter undertaken in the name of the Society, and for acts of employees.

It seems to us that the Jamaica Agricultural Society performs in Jamaica, the same functions as does the Royal Agricultural Society in England. This latter Society was created by Royal Charter in 1840, and it appears likely that if approached, the Jamaica Government will be prepared to pass an appropriate Law for the incorporation of the Jamaica Agricultural Society on similar lines.

(Sgd.) MANTON & HART.

On the suggestion of Mr. Cover the Secretary was instructed to send a copy of the letter to each member of the Board.

On the motion of Mr. Walker seconded by Mr. McDaniel it was decided that a copy of the letter be sent to the Hon. Colonial Secretary with the request that the Government take the necessary steps to have the Society incorporated on the lines of the Royal Agricultural Society in England.

Question from Mr. Cover.—

Mr. Cover obtained the permission of the Chairman to submit a question as he was not present when that item was taken. He asked the following:—

"Does the Board propose to appoint a Supervisor for the Eastern division of the Island in place of Mr. Carrington assigned for duty in the Department of Science and Agriculture? If the answer is in the affirmative, when; if in the negative, why, and on what grounds?"

Report from Committee.—

(a) *Re Proposed amendments of Citrus Regulations.*—The Secretary read the following report:—

30th April, 1935.

To the Board of Management:

Gentlemen:

Your Special Committee appointed to consider amendments proposed by Mr. D. D. Phillips to the Agricultural Produce Law, met on Wednesday 17th April, 1935, at the Office of the Society, 11 North Parade, Kingston, and considered same.

Your Committee recommends as follows:—

1. That in view of the fact that it has been brought to the notice of the Committee, that itinerant dealers in agricultural produce go around gathering produce and in many cases money passes between the grower and the gatherer, and the Police take no action in the matter because the defence that is always put up by these persons is that they are not buying nor selling, but only handling and that in the opinion of the Committee this causes loss of revenue to the Government and creates unfair competition to licensed dealers, that the Government be approached with the request that the wording of the Law be so altered as to prevent these practices.
2. That Citrus Depot Licenses should be reduced to £2 10s. per year.
3. That the licensing of higglers is not advisable.
4. That no alteration to the regulation with regard to the harvesting of citrus fruit from the trees with clippers should be made.
5. That no alteration to the regulation governing the counting of fruit for sale should be made.
6. That the regulation governing the duties of Inspectors of Produce with regard to the amount of fruit in relation to the area of packing houses should remain as it stands.
7. That the Board recommend to the proper authorities that the variety "Washington Navel" described as a standard variety should in future be referred to as "Navel."

(Sgd.) GLAISTER BAXTER,
Secretary of the Committee.

The Secretary stated that Messrs. Phillips and Lewis who were members of the Committee did not support the report.

On the motion of Mr. McKay seconded by Mr. Walker, the report was adopted, four members voting for, Messrs. Phillips and Lewis against, and Messrs. Cover and Westmorland not voting.

Diseases of Plants and Animals: Insect Pests.—

Panama Disease of Bananas—Report for March.—The Secretary laid on the table the monthly report on the incidence of Panama Disease of Bananas and stated that copies had been issued to members of the Board.

Pimento Industry.—

(a) *Report by Government Microbiologist on Pimento Disease.*—Letter from the Director of Agriculture covering report by Mr. F. E. V. Smith, Government Microbiologist, on his recent observations in regard to the disease of pimento was submitted.

The Secretary stated that copies had been sent to the members of the

was wiped out. The trees were all dying and without exaggeration there was not a bag of pimento to be reaped in Southern Manchester this year. On an average 20,000 bags of pimento was gathered in that section annually and valued at at least £1 per bag; the estimated loss would be about £20,000. There was no hope for a crop this year. The Microbiologist had visited that area but no improvement of the situation had been effected.

Mr. Cover said he had observed from the report that people were advised that the leaves should be collected and dug deeply into the soil. It occurred to him that that would affect the roots. In the last paragraph of the report it was stated that it would need two years of research work to study the disease. He was of opinion that some such disease occurred in the island before and he suggested that the Board request the Director of Agriculture to search his office records and see whether between the years 1914 and 1918 a similar outbreak was not reported, and pronounced upon by the then Director of Agriculture. The result of this would perhaps give the Board more facts and the sufferers more hope. The suggestion was agreed to.

Mr. Lewis asked that the Director of Agriculture be invited to visit the affected area and the Board directed the Secretary to ask the Director of Agriculture if he had not yet done so to be good enough to pay a visit to the pimento diseased area of Manchester.

Live Stock Subsidy.—

(a) *Application from Lucky Valley Branch re Stud Goat.*—Letter from the Lucky Valley Branch was submitted asking for a subsidy towards the purchase of a pure bred ram of milking strain.

On the motion of Mr. Cover seconded by Mr. Walker this was granted.

Mr. Cover asked that reports on the ram that was subsidised in the Brown's Town area and the boar in the John's Hall area, be laid on the table at the next meeting.

The Secretary was instructed to carry this out.

Resolutions from Branches.—

(a) *Pedro Plains re "Agricultural Week".*—This resolution asked that the Director of Agriculture be requested to work out a scheme by which the entire Island could celebrate an "Agricultural Week."

The Secretary was instructed to request the Branch to formulate what they had in mind for the consideration of the Board.

(b) *Clarendon Branches Associated. Re (i) Analysis of Soils.*—This resolution requested that the Government be asked to make a concession to those requiring scientific analysis of soils and manures for agricultural purposes, provided the specimens were sent through the Secretary of a Branch Society.

Mr. Cover said that Mr. McKay had raised the question some time ago. He suggested that investigations should be made to discover what concessions were then made by the Department of Agriculture.

The Board endorsed the suggestion.

(ii) *Telephonic communication between Post Offices and Police Stations.*—This resolution asked that the Government be requested to connect Police Stations and Post Offices by telephone.

The Secretary was instructed to forward the resolution to the Colonial Secretary.

(iii) *Outstation Dispensary at Thompson Town.*—Resolution asking that an outstation dispensary be established in the district of Thompson Town was noted to be forwarded to the Superintending Medical Officer.

(iv) *Papaw Seedlings.*—This resolution requested that the Director of Agriculture be asked to keep a supply of Papaw seedlings in stock for sale to smallholders.

After a short discussion it was decided that the Society should stock Papaw seeds.

(v) *Railway Siding at Danks Crossing.*—This resolution asked that the Government be requested to give a stop of the train at Danks Crossing to facilitate residents of the Top Hill, Crawle River, Peters Hill and Pindars Valley districts.

The Secretary was instructed to forward same to the Director of Railways.

(vi) *Improved postal facilities at Brandon Hill etc.*—This resolution requested that representations be made to have the mail carrier between Chapelton and Colonel's Ridge so equipped that he would be able to take parcels on the occasions when he carries other mail from Chapelton to Colonels's Ridge.

The Secretary was directed to forward same to the Postmaster for Jamaica, with a request that he should do the best he can in the matter.

(vii) *Telephone at Toll Gate P.O.*—This resolution stated the necessity for the installation of a telephone at the Toll Gate Post Office and asked that the matter be taken up with the proper authorities.

The Secretary was instructed to forward the resolution to the Postmaster for Jamaica.

(viii) *Improved Mail Service for Toll Gate, etc.*—This resolution stated that the present arrangement for the despatch of mails causes delay at certain times and asked that the Postmaster be requested to make such adjustments as would admit that mails from Toll Gate and Osborne Store to Four Paths and *vice versa* may be dispatched on the day of receipt.

The Secretary was instructed to forward the resolution to the Postmaster.

Bush-Buyers of Bananas.—

Mr. Walker obtained the suspension of the standing orders and moved that a deputation be appointed to wait on the Inspector General of Police to emphasize the seriousness of bush buyers of bananas and to request that steps be taken to curtail their activities.

This was seconded by Mr. Phillips.

After discussion the motion was carried and Messrs. Walker, Lewis, McKay and McDaniel along with the Secretary were appointed to wait on the Inspector General.

Mr. Walker left the meeting.

New Members.—

On the motion of Mr. McDaniel seconded by Mr. Phillips the following were elected to be members of the Society.

V. N. Burrowes, Burrowes' Service Station, 76½ Spanish Town Road.

John B. Mynton, Old Harbour.

D. J. Stoddart, 87 Hanover Street, Kingston.

Ronald Thwaites, 17½ Outlook Avenue, Bournemouth Gardens, Windward Road.

A. M. Bryson, "Cambria," Linstead.

F. C. Coote, Wakefield Park, Linstead.

R. C. Manton, c/o D. Henderson & Co. Ltd., Kingston.

J. U. V. McCormack, Kentucky Farm, Lucky Hill.

E. S. Harvey, Petersfield.

Other Business.—

(a) *Competitions (i) Ginger: Report from Supervisor Bacquie.*—Letter from Supervisor Bacquie dated 26th April was submitted stating that the Ginger Competition arranged for by Mr. J. Stephen Miller of Christiana, was very successfully concluded. He had asked Mr. Miller to send the sample of the first prize lot to the Society.

The Report was noted.

(ii) *Peanut and Pineapple. Letter from Mr. P. W. Sangster.*—The Secretary stated that the results of the recently judged Peanut competition in St. Elizabeth had appeared in the Journal. The entire cost of the competition had been borne by Mr. P. W. Sangster. Mr. Sangster was now requesting that another competition be arranged to take place in the Fall. He also asked if it would be practicable for the Society to arrange a Pineapple competition in the Lacovia, Middle Quarters and Brompton areas on lines somewhat similar to the Peanut Competition.

The Secretary stated that he had advised Mr. Sangster that before starting a Pineapple Growing Competition a nursery should be provided in the area, and he had agreed to financing the establishing of such a nursery.

It was unanimously agreed that Mr. Sangster's request for the holding of another Peanut Competition and a Pineapple Competition be granted, and that the thanks of the Board be conveyed to Mr. Sangster for the interest he had displayed in the recent competition.

Mr. Harper Watson joined the meeting.

(b) *Letter from British Empire Producers, Organization re Subscription.*—Letter was submitted mentioning that an alteration was made in the method of distribution of "Empire Production", the Journal of the British Empire Producers Organization, and asking that the Society renew their subscription, which had been discontinued some years ago. The Secretary stated that this was done due to lack of funds.

The Board regretted that owing to the same cause they were unable to renew the subscription.

(c) *Letter from Messrs. D. J. Scott & Co., re Honey Industry.*—The Secretary read the following:—

38 Lombard Street, London, E.C. 3.
2nd April, 1935.

"We beg to confirm our letter to you of the 18th. ultimo in which we sent you a copy of our Honey Market Review in which you will have observed the suggestions we made with regard to making efforts to prevent, if possible, the sale in this country of a Honey substitute called "Prepared Honey" which has been seriously affecting the trade in all varieties of home-produced and Empire Honey. As a result of our co-operation with the British Bee-Keepers Association in London, it has now been decided to ask the Ministry of Health to receive a Deputation so that all the facts may be laid before the Ministry for some action to be taken.

Certain Canadian interests have joined forces with us and it is being arranged for the Deputation to include the President or Secretary of the British Bee-Keepers Association, the Commissioner for Saskatchewan, Canada (representing the Canadian interests) and ourselves as one of the principal importers of Jamaica Honey. We however feel that from the point of view of the Jamaica Industry it might carry more weight if we also spoke on behalf of the Jamaica Agricultural Society as well as ourselves as importers. We would therefore be glad, if you are so disposed, to represent your interests should the Ministry of Health decide to receive the Deputation.

The object of approaching the Ministry of Health will be confined to the fact that

(1) the sale of synthetic Honey called "Prepared Honey" (which is sold at less than half the present price of genuine Honey), is rapidly developing and is seriously affecting the price and sale of Jamaica Honey.

(2) That a large number of small Bee-Keepers in Jamaica depend solely upon the sale of their Honey for a livelihood.
(3) That there is at present no other market, besides this country, for Jamaica Honey.

The question of increasing the Import Duties on foreign Honey might be raised, but this concerns a different Government Department, viz.: the Import Duties Advisory Committee.

We shall be glad to hear promptly from you in the matter by Air-Mail, and in fact we are so wishful in establishing a higher level of prices for the Jamaica Honey which from a business point of view is directly in our own interests, that we are quite prepared to have you send us a short cablegram by N.L.T. of 25 words stating that your Society is in sympathy with the movement and asking us to represent you on the Deputation.

(Sgd.) D. J. Scott & Co.

The Secretary stated that he had submitted the correspondence to Mr. Sangster the Chairman of the Bee Industry Committee. He had also received a subsequent letter from Messrs. D. J. Scott & Co., dated 30th April, which he also read.

Mr. Phillips said he thought the matter was of great importance and steps should be taken to advise Messrs. D. J. Scott and Co., to act as they suggested, on behalf of the Jamaica Bee-Keepers.

The Secretary was directed to send a cablegram to Messrs. D. J. Scott & Co. to proceed as they suggested.

(d) *Report from Government Microbiologist on Marketing investigations made in England.*—The Secretary stated that this report by Mr. F. E. V. Smith, Microbiologist, was the result of investigations made by him while on leave in England during the period June, 1934 to January, 1935, and dealt with the marketing of Bananas, Citrus, Mangoes, Avocado Pears, Kumquats, Tangelos and other special forms of Citrus, Tangerines, Limes, Passion fruit, Golden Apples and Granadillas, Custard Apples, Pineapples, Miscellaneous Tropical Fruits, Tomatoes, Eggplants, Sweet Peppers, Beans, Cucurbits, Sweet Potatoes, Irish Potatoes and Miscellaneous Vegetables.

The Secretary was directed to circulate the Report to the Members of the Board.

(e) *Authorised Persons: Return of Arrests for Quarter ending* 31.3.35.—The Secretary laid on the table the return of arrests made by Authorised Persons during the quarter ending 31st March, 1935, and stated that a summary of this would be published in the Journal as usual.

This was noted.

(f) *Resolution from Turnberry Branch re Post Office.*—This resolution asked that the matter of establishing a Post Office in the Turnberry district be taken up with the Postmaster for Jamaica.

The Secretary was instructed to refer the matter to the Post Master for investigation.

(g) *Letter from Mr. T. J. Cawley.*—Letter from Mr. Cawley dated 29th April was submitted acknowledging resolution of sympathy in his illness forwarded to him from the meeting of the 17th April.

This was noted.

(h) *Letter from Supervisor.*—A similar letter from the Supervisor was submitted and noted.

(i) *Invitation from St. James Branches Associated for Secretary attend meeting* 18.5.35.—Letter was submitted on behalf of the St. James Branches Associated requesting the Secretary to attend their Annual Meeting to be held in Montego Bay on the 18th May.

This was left in the hands of the Secretary.

Wh
A.
F. C.
R. C.
J. U. V.
E. S. Har

(j) *Terms of Employment.* (*i*) *Letter from Supervisor.*—This letter from Mr. Bacquie stated that when he was appointed Supervisor from 1st October, 1932, no reference was made to the conditons of employment. He was requesting the Board to consider favourably fixing his terms of employment on the same lines as those of the Secretary at three months' notice on either side.

Mr. Cover said this afforded him an opportunity of recording his disagreement with the recent arrangement whereby Mr. Bacquie was appointed to be Supervisor of the Eastern as well as the Western division of the Island. The Board had some time ago gone into this matter of the Supervision of Instructors and had decided that it was impossible for one Supervisor to overtake the work of supervising the Instructors throughout the Island. It was on this consideration that two Supervisors were appointed. Mr. Carrington had been transferred to the Department of Agriculture and the Secretary had endeavoured to carry on his work. The Secretary had stated that he was unable to overtake the supervising of the work of the Instructors in the Eastern section and carry on the work of the Office successfully. Reports submitted to the Instructors Committee from time to time disclosed that Mr. Bacquie's time was fully occupied and he (Mr. Cover) was at a loss to understand how it was possible to expect Mr. Bacquie to perform the work of supervising the Instructors in the whole Island. He thought such an appointment a retrograde step and he wished to record his protest

The protest was noted for record.

(ii) *Letter from Instructor Hanson.*—Letter from Mr. Hanson was submitted requesting that the Board allow time for a Conference of the Instructors to discuss the regulations governing the Field Staff before a finality was arrived at by the Board.

(iii) *Letter from Instructor Thompson.*—This letter was presented and stated that with his appointment there was the understanding that his services should be terminated with three months notice on either side, and asked that the agreement be allowed to remain unchanged.

The Secretary was instructed to ask Instructor Thompson to forward a copy of the correspondence setting forth the terms of his employment as mentioned by him.

On the motion of Mr. Cover seconded by Mr. McDaniel, the whole matter of the terms of employment was deferred for discussion at the next meeting of the Board.

(k) *Letter from Supervisor re new appointment.*—Letter from Mr. Bacquie was submitted acknowledging receipt of a letter from the Secretary informing him that he was appointed Acting Supervisor for the whole Island and pointing out that he was already Supervisor for the Western Section of the Island, and the acting position would be in connection with the Eastern section of the Island.

It was decided that it be pointed out to Mr. Bacquie that the intention of the Board was to retain him as Supervisor for the Western section of the Island and appoint him to act as Supervisor for the Eastern section.

Mr. McKay moved the suspension of the standing orders and moved the following resolution:—

"That the Board of Management of the Jamaica Agricultural Society hereby ask His Excellency the Governor to convey to Their Majesties King George V and Queen Mary, the loyal greetings of the Agricultural population of this Colony for having completed a reign of twenty-five years on the 6th day of May, 1935, during which time marked progress has been observed throughout the commonwealth of nations, and would

pray that the remaining years of Their Majesties' reign may be characterised by peace throughout the world and further prosperity throughout the Empire.

This was seconded by Mr. Cover and unanimously carried.

The meeting then adjourned to Wednesday the 5th of June, 1935, at 11.30 a.m.

NOTICE.

Members of the Jamaica Agricultural Society and its Branches are hereby notified that Railway Return Tickets at Single Fares for the purpose of attending the Annual Summer Course of the Department of Science and Agriculture to be held at Hope during the week of the Half-Yearly General Meeting of the Society (week ending 27th July, 1935) can be obtained by applying for a certificate to this effect from:—

The Secretary,
Jamaica Agricultural Society,
11 North Parade, Kingston.

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B. & J. B. Machado Tobacco Co., Ltd.

Another RECORD-BREAKER *in this* *fastest* HAIR GROWER!

S P E E D . . . that's what you want when you start to GROW HAIR . . . that's what you get with this remarkable, doubly-active, scientific Black and *White Hair Grower!*

Not only does it grow hair FAST but grows it in ABUNDANCE . . . lots of hair, more than you ever dreamed of, and it's soft and silken, too. That's because this extremely rapid grower has special ingredients in it that nourish the scalp glands and help Nature GROW LONG HAIR QUICK! Large can only 25c.

DRESS . . . your hair in any style with Black and *White Hair Dressing.* White, 50c; Amber, 25c.	**PROTECT** . . . your hair from burning and scorching. Use Black and White Glossine. 25c a can.	**LAY DOWN** . your hair and keep it down with Black and White Pomade. Best you ever used. 25c for large can.

★ TUNE IN "PLEASURE ISLAND" WEDNESDAY NIGHT, NBC NETWORK ★

AGENTS—:

H. D. HOPWOOD & CO.

AMERICAN FOUL BROOD OF BEES.

By Dr. S. Lockett, Government Veterinary Surgeon, Department of Science and Agriculture.

Introduction.

As the bee-keeping industry of the Island is again menaced by American Foul Brood, all bee-keepers should be well-informed of the nature and characteristics of the disease, so that they may detect it in its earliest stages and immediately report their discovery (even their suspicion) of the disease to the Director of Agriculture for his investigation and the institution of prompt suppressive measures.

It is only by constant vigilance and the fullest co-operation on the part of the bee-keepers that this very serious disease can be suppressed and possibly eradicated.

The Government by legal methods and its inspection service can and is doing all in its power to assist and protect this valuable minor industry of the Colony, but the whole scheme for its suppression is doomed to failure, unless the bee-keepers themselves take this whole matter very seriously and actively assist the work, as well as make definite sacrifices both for their own good and the *ultimate* welfare and preservation of the industry. Although the bee-keeping industry is an asset to our Island of no mean importance and value it is primarily an industry of particular and personal monetary value to those engaged in it; therefore, for personal as well as civic reasons the bee-keepers themselves should support the campaign of control and readily make sacrifices for the suppression and eradication of the disease.

The present outbreak in the Island (dated officially as of November 13th, 1934) is the *third* known occurrence of this disease in the Island. The first outbreak officially dated December 14, 1918, and traceable to infective honey in transit from Cuba, was drastically stamped out by the incineration on the Kingston Race Course of all known hives of bees (1,719 hives) within a 3 mile radius of the Kingston Parish Church on nights of January 16th and 17th, 1919.

The second outbreak was officially recognized in early July, 1926 and first named "Four Mile Brood Disease," but subsequently proven to be American Foul Brood. In this outbreak the parishes of Kingston and St. Andrew were declared an "infected area" and placed under restrictive regulations for 21 ensuing months ending March 31st, 1928. During the period 25 of the 106 registered apiaries in Kingston and St. Andrew showed infection—8 of these numbering 211 colonies were totally destroyed by Government and 52 infected colonies in the other 17 infected apiaries: a total of 263 colonies destroyed.

In the present outbreak (third occurrence) at the time of writing (June 9th):—

(i) No infection has been discovered outside the parishes of Kingston and St. Andrew.

(ii) 11 of the 85 registered apiaries in these parishes have shown infection and all infected colonies found up to end April (last inspection) have been burnt.

Whilst present indications point to a successful suppression of the present outbreak (it is gratifying that the infection has so far remained confined to Kingston and lower St. Andrew), it still behoves each apiarist throughout the Island, but particularly those in Kingston

and St. Andrew, to be very watchful of their colonies. The earlier infection is discovered and dealt with the more effective is the check given ito the spread of the disease. The suppressive measures carried out in the 1918-19 and 1926-27 outbreaks show that the disease is definitely controllable and therefore need not become a permanent menace to the bee-keeping industry. As already stated the Government is prepared to do its part in the suppression and eradication of this third outbreak, but in the final analysis a successful campaign depends upon the attitude and co-operation of bee-keepers, large and small. Extinguish the spark which has all the potentiality of a real conflagration before it assumes unmanageable proportions and magnitude.

It would be a great pity to have such an interesting, pleasant, profitable and civilising industry as our bee-keeping ruined by the indifference, ignorance and carelessness of its devotees.

If American Foul Brood is permitted to gain an extensive grip on the industry in this Island, it will prove a permanent curse and a perpetual handicap to the industry: it may even ruin it.

As this is the third appearance of this dire bee disease in our Island, it will require constant watching and particularly so for the next 3 years. It has insidious ways of lying latent to reappear when apparently gone and strange (often difficult to explain) methods of spreading from hive to hive and from one locality to another.

Nature of the Disease.

American Foul Brood, as its name implies, is a foul-smelling disease of the brood of honey bees which causes the death of the brood when in an advanced stage of its larval development, that is, about the time the larvae are capped by the bees. Death, however, may occur in sucb diseased larvae two or three days before or after actual capping. The cap of affected sealed cells is shrunken, greasy in appearance and usually perforated with minute ragged holes. When such cells are uncapped the contained larvae are found dead and of a dirty yellowish-brown colour if death has been recent or of a definite dark-brown to black shrivelled decomposing mass, if death is not of recent occurrence.

In the incipient stages of a colony's infection the number of affected cells may be very few—2 or 3 on each face of a single comb—but gradually and in the process of time more and more larvae are infected and die. By this ever-increasing process of depletion of the colony's young population, tbe numerical strength and vigour of the colony is reduced and in the end the whole colony is lost or killed out by robbers which prey upon the weak colonies.

Indications and Symptoms of American Foul Brood.

These are so fully and clearly set out under Foul Brood in the A.B.C. and X.Y.X.Z. of Bee Culture by A. I. and E. R. Root of The A.I. Root Company of Medina, Ohio, U.S.A., that I cannot do better than quote from their writing on the subject.

"As a general thing the beekeeper will not discover it in its incipient stages. He is not expecting it, and, if it comes does not see it. His first intimation of its presence will be occasional cells of sealed brood showing sunken, greasy cappings with irregular perforations. American foul brood is confined mainly to brood that has died *after* the cells have been sealed; but 25 or 30 per cent of unsealed cells will show dead brood, and the dead larvae in both sealed and unsealed will vary in colour from a yellowish brown to a dark brown, and finally to a brownish

black. The larvae that has just died holds its shape. As the disease advances it begins to shrink, and the dead matter becomes so rotten and putrid that the skin breaks, and we see on the lower side of the cell a melted-down mass of matter that is very ropy—that is to say, sticky and tenacious. The worst specimens are usually found in the cells that have been sealed, although the melted broken-down form of larva will be found in some unsealed cells.

In this connection it should be stated that the initial stages of foul brood are usually confined to the sealed cells. After the disease has advanced so that 75 per cent of all the sealed brood in a comb is affected, there will be found quite a sprinkling of stray cells of young larvae have never been capped over that are dead. But usually the grub will be almost fully grown before it dies in the unsealed cell, tending to show that American foul brood does not usually kill the larva until after it is sealed in the cell, or just before that sealing.

Right here it is pertinent to remark that *European* foul brood is usually confined to the unsealed cells. The dead larva of this disease will have a light-yellow color instead of a brownish-dirty one verging on to very little black. The American may be found at any time of the year when brood-rearing can take place; but the European type usually shows up at its worst early in the season, and before the main honey-flow.

One may find occasional dead brood just before sealing that does not indicate disease of any sort; but the one crucial test that is usually employed to distinguish American foul brood from brood dead from starvation, chilling, or overheating, and brood dead from European foul brood is the roping test. A common wooden toothpick, sometimes a spear of grasss or a broken sprig, or even a pin, breaks through the skin of a suspicious larva. If the dead matter appears like spittle or stringy glue at the end of a toothpick or whatever is used, and strings out from half an inch to two or three inches, one may be almost sure that it is a case of foul brood of the American type—especially if the dead matter strings out two or three inches and finally breaks, the two ends flying back to the points of attachment.

It is very seldom that we find *all* the cells in the comb affected, even in an advanced stage. American foul brood seems to attack a comb in spots. This is due, probably, to the fact that young larvae are fed with a pap or honey containing the germs of the disease. As this affected food is fed by a bee or bees recently in contact with affected material, only the small area so fed is affected. Other small areas are given a food that is not contaminated; and all such brood matures and is healthy, and is as perfect as any normal brood. As a rule, in the worst-affected cases half of the brood will hatch out perfectly healthy and normal bees so that foul brood, either American or European in its very worst stages does not necessarily kill a very large part of the brood; but of course if the colony containing it is neglected every cell in the comb will ultimately become diseased.

The name (foul brood) would indicate that it is foul-smelling. In a very advanced stage one can detect a strong odor like that from an old-fashioned glue-pot while the glue is hot. The odor is not necessarily foul nor nauseating; but there is a stage (and that is when almost every cell is affected) when the odor is distinctly foul—so much so that one feels he can not continue to smell it without its turning his stomach. After one has once had a whiff of genuine foul brood he can very often detect the odor by placing his nose at the entrance of the hive."

As already suggested in the above quotation the infection is not

uniformly spread throughout an infected colony, but rather irregularly distributed. For this reason and particularly in the early days of a colony's infection diseased cells are often well separated and healthy brood is found between and among infected cells.

In feeding the larvae, building and capping cells, ripening the nectar and transferring it from place to place in the hive, the bees may contaminate the honey not only of the brood nest, but also in the supers, probably in less degree however.

Under these circumstances, it is not possible to estimate the extent to which an infected colony is actually contaminated, consequently the only effective and practical method of dealing with it is to regard it as wholly infected or contaminated.

As the disease is caused by a minute microscopic organism (bacillus larvae) which forms spores (an involution form) in which the organism is extremely resistant to destructive agents such as sunlight, drying, heat and chemical disinfectants, the prospect of ridding an infected colony, infected honey, infected wax as well as hive body, boards, frames, etc., is virtually nil. The length of time these spores retain their virulence (power to cause the disease) has *not* been actually determined, but tests show that they can and do live for years in honey, combs and parts of hives and their fixtures. For these and other reasons the most effective method of dealing with infected hives is total incineration of the entire colony (after the bees are gassed) and the entire hive with its parts, combs, frames, etc. This procedure may at first sight appear wasteful, but experience shows that it is the cheapest and best method in the end.

While it is admitted that hive bodies, bottom and top boards and queen-excluders can under special conditions be so cleaned and disinfected as to be safe for further use, the Government is not prepared to sanction this procedure, for the present, at least, because, it necessarily requires very painstaking operation, much supervision and unless thoroughly done may prove a means of perpetuating the infection of the disease. The thorough mechanical cleaning (scraping and scouring) and subsequent scorching with a gasoline blow-lamp of wood hives tops, bottom boards and frames of non-infected colonies as a precaution and safeguard against possible infection or introduced infection is well-advised and is urged upon bee-keepers, particularly in an infected apiary or an infected area, as a means of their own protection. It should be voluntarily done for their own safety as well as that of their district. An ounce of prevention is worth a pound of cure.

Other Brood Diseases Sometimes Mistaken for American Foul Brood.

In past years bees were regarded as singularly free of diseases, but since they have been domesticated and more fully studied, they have been found as subject to disease as other forms of life.

Their diseases are generally classified as diseases of the brood and of adult bees.

Adult bees are subject to such diseases as dwindling, diarrhoea (probably infectious), paralysis and a mite disease (acarine disease) known as Isle of White disease.

The brood may be affected or die from chilling, overheating, starvation, poisoning (non-infectious troubles) and three definitely infectious —American Foul Brood, European Foul Brood, and Sac Brood (also known as Pickled Brood).

In the case of the non-infectious brood diseases, such as chilled, overheated, starved or poisoned brood, the larvae in particular are liable to die suddenly and in great numbers, but as soon as the cause is removed or remedied, and, if the colony is of normal strength and vigour, there is a general house-cleaning of the dead and soon things are normal again.

On the other hand the infectious diseases—American and European Foul Brood and Sac Brood—are very insidious in their origin, tend at the beginning of things to affect only a very few larvae in a colony, but in the process of time the number of affected larvae or pupae steadily increases: This for the reason that a deadly living agent of microscopic size steadily multiplies in the affected brood and is gradually but steadily disseminated through the colony by the bees in their natural hive life, such as feeding larvae with food or pap containing infected honey. The diseases most easily mistaken for American Foul Brood are European Foul Brood and Sac Brood.

The means of distinguishing one from the other are not a single sign or symptom, but the collective indications or symptoms of each.

American Foul Brood. (Bacillus larvae.)

The group symptoms or indications are:—

1. The larvae died generally *after*-capping, although when the disease is advanced in a colony 25 or 30 per cent. of the affected larvae may died before sealing. Occasionally (rarely) the larva may die in the coiled stage: much the larger proportion, however, died later in their development, i.e., when the grub is elongated in the cell and it is capped or about to be capped.

2. The colour of the larvae at death or early thereafter is a yellowish-brown (not the lemon colour of the European type): as the dead mass decomposes it becomes a dark brown and shrinks lying on the lower part or trough of the cell with its head prone and possibly its tongue pointing upwards. As this shrivelling of the dead mass continues it takes on a brown-black colour and finally remains adherent to the lower wall of the cell as an adherent or tenacious dried dark brown or black scale that is difficult to remove.

3. After death and as shrinkage of the dead mass progresses (particularly in the latter stage of the process) a toothpick or match end, if inserted into the mass and pulled away reveals a definite ropiness of the material. It will pull out to a length varying from an inch to 2 or 3 inches and suddenly snap with a recoil of the thread-like strand to its points of attachment. This ropiness of the dead larvae is very characteristic of the American type, and may generally be taken as a characteristic indication of the disease.

4. An affected comb in the early stages of infection does not show an uniform or collective mass of diseased cells. Such cells are usually scattered about singly or in small groups among healthy convex (unsunken) sealed brood cells. Later as the infection becomes more generalized in the brood combs, patches of dead larvae in sunken, raggedly perforated cells are found.

5. The foul rotten glue-like order of the disease is not at first definitely perceptible, only after many cells of brood are dead and decomposing.

European Foul Brood. (Bacillus pluton.)

The group symptoms are:—

1. The larvae is attacked at a much earlier stage of their develop-

ment than in American foul brood or Sac brood, that is, while they are *still coiled up at the base of the cell.*

Very rarely a few larvae die after they are capped.

2. The sunken and raggedly perforated caps so commonly observed in American foul brood are not common, for, as already said, the majority of the affected larvae die early in their life (before they are capped).

3. The colour of the coiled larvae changes gradually from its healthy pearly white to a slight grey or yellow (a lemon yellow may be taken as the characteristic colour of diseased larvae). In general, the dead larva appears as a moist, somewhat collapsed, mass. As drying and decomposition progress, the dead larvae shrivels, becomes more shapeless and finally appears as a yellow or greyish-brown scale against the base or side wall of the cell. This scale is not adherent as in the American type and is never a true black in colour. For this reason, the scales are easily removed by the bees in house-cleaning.

4. The posture (lying position) of the dead larva in the European type is very variable. It may lie flattened against the base (bottom) of the cell, or turn so that its two ends are towards the bottom of the cell, or it may fall away from the bottom and be found on the floor, side walls or even against the roof of the cell. This variability of position of the dead larvae in the cells does not occur in American foul brood. Almost without exception the dead larva of the American disease is found on the floor (trough formed by the two lowest walls of the six-sided cell) of the cell, and when in its dried scale stage (final stage of decomposition and drying) it is extremely adherent to the cell wall.

5. The marked ropiness of decaying larvae dead of American foul brood is generally lacking in the European type. A slight ropiness is sometimes observed, but when tested with a tooth-pick the larval contents do not pull out as finely or extensively as in the American type.

6. In neither of the foul brood diseases is any pronounced odour detectable in the early stages of a colony's infection. However, when well advanced and large numbers of larvae die, a definite odour is evident. In the American form the odour is like unto that of an old glue-pot, in the European type the odour suggests that of yeast fermentation (sourness).

7. In American foul brood worker larvae are attacked almost exclusively, whilst in the European type the larvae of drones and queens are nearly as frequently and quickly attacked. This when present is of great diagnostic value in the field.

8. Generally speaking, the European type, though actually killing out fewer colonies than the American disease, spreads more rapidly in an apiary and locality.

9. The symptoms in the European disease are more variable than in the American. The yellow or yellowish colour of the dead larvae, the early age of their death and the variability of their position in the cells are the most constant and dependable symptoms of this kind of foul brood.

Sac Brood. (A virus disease)—

This by some apiarists is called "pickled brood," which is an unfortunate name, because brood dying from a variety of natural causes, such as chilling, overheating, starvation, etc., is also often termed "pickled brood." The name should be discarded as confusing and of no specific value.

True Sac Brood is an infectious disease, but no definite micro-organism has yet been established as its causative agent as is the case n the Foul Broods of European and American type.

When sac brood infected larvae early after death are crushed and heir substance mixed with syrup and thus fed to healthy colonies of ees, the infectious material constantly produces the disease, accordingly t is of an infectious nature.

Sac Brood is more benign (mild) in character than the Foul Broods. The colonies which die from Sac Brood are comparatively few, if they re judiciously handled. Its greatest damage is in the weakening of olonies by reduction of emerging population. As weak colonies are ot of much value in honey production the disease is of considerable conomic importance.

The disease is named "sac brood" because of the sac-like appearance f the dead larvae found in affected combs at the time they are most requently discovered by the bee-keeper.

It is an old disease in the annals of bee-keeping and has been col-ecting its toll of death for centuries.

Though a relatively benign disease (the virulence, however, varies n different outbreaks) it should not be ignored, because its presence n an apiary may make the difference between profitable and unpro-itable operation.

Symptoms.—

The brood dies after the larvae are capped by the bees. There is 4-day period between the capping of the larvae and their change metamorphosis) into a pupa. This is really the 4-day prepupal or re-nymph stage in the development of the young bee in the brood ell.

During the first two days of this short period the larva is very mobile nd spins its cocoon within the cell. In the later 2 days it becomes ery quiet and rapidly undergoes the changes in form which result in pupa ormation. It is during this 4-day period (pre-pupal period) that larvae prepupae) die of sac brood. Although many die during the first two lays of this 4-day pre-pupal period (the active period), the greater umber die during the latter two days (period of rest). For this eason all sac-brood-dead larvae should normally be capped, but the ees often remove in part or entirely the caps of affected cells, or ailing this puncture them with one or more holes. Worker-bee arvae are those most usually affected.

When a dead diseased larva is uncapped or found already uncapped, *t is seen to be lying lengthwise on the floor of its cell with its head* lightly depressed and is then slightly yellow. The colour changes radually to a brown in a few days. The shade of brown deepens as ecomposition proceeds, and finally as a shrunken scale it is very dark rown or even black. Occasionally the decaying mass may be greyish.

As decay progresses the body wall (cuticle) of the larva toughens, hereby permitting the easy and complete removal of the remains ntact from the cells. Its body contents during the first period of its lecay remain watery and grandular, thereby presenting a bloated vatery appearance when removed from the cell. If the bees do not emove the dead larva at this stage, its body surface, on account of he evaporation of its watery contents, becomes wrinkled and its shape listorted. Finally it dries into a "scale" lying lengthwise on the floor f the c ll of dark brown or bl ck colo r with its two body ends turned pwards and resembling a gondola-like boat or a Chinese shoe. The "scale," unlike that of American foul brood, is *not* adherent to the

cell wall and is easily removed by a toothpick or by the bees. In fact, in the advanced stage of drying and shrinkage the scale is so loose in the cell that it may be shaken out.

In Sac Brood the affected combs have little or no odour, but if decomposing larvae are crushed in a mass they have a definitely disagreeable smell. It is the toughening and shrinking of the body wall or cuticle which prevents the escape of the watery body contents resulting in a sac-like form and structure which has given this disease its name of Sac Brood.

Each of the above three diseases having some features of similarity, but not identity, have been thoroughly studied and proven to arise from distinct and separate causative agents: American Foul Brood is produced by a micro-organism named Bacillus larvae, European Foul Brood from a similar organism named Bacillus pluton, and Sac Brood from a virus (form of microscopic life too small for detection by the microscope, but capable of being arrested or strained out in the pores of specially constructed filters). As each disease is of definite, specific and distinct origin, each is a separate and distinct disease. One of these diseases cannot and does not change into the other: this is biologically impossible. Any two or even all three *may* exist at one and the same time in an apiary, more rarely in a single colony, yet and in spite of this, each is a distinct disease characterized by distinguishable symptoms and behaviour.

Origin of the Names of the Three Diseases.

Sac Brood—

As already stated the name chosen is descriptive of the sac-like form the body wall (cuticle) of dead and decaying larvae (prepupae) assume after their death in the 4-day prepupal period of development.

American and European Foul Brood.—

European foul brood was first called "black brood," but this was not a well-chosen name, for the predominating colour of larvae dying of this infection is *not black*: if any colour name is justified it is yellow to brownish yellow, but colour merely is not a safe guide of identity and is a variable symptom. In fact any descriptive name (colour included) for either of these diseases with such variable manifestations is not advisable or dependable.

While the term "foul brood" is applicable to both because of the foetid odor associated with each, a differentiating adjective had to be found for each, as the two diseases are separate and distinct.

The students of bee diseases finally decided years ago to call one of the foul broods European, because the first and earliest studies and descriptions of the disease were made in Europe; and the other foul brood, American, because its character and causative agent was first worked out and reported in America (U.S.A.).

The names European and American are not intended to imply that the respective diseases originated one in America and the other in Europe. Both diseases occur in both continents; and as the honey bee is not native to America both diseases were evidently introduced into that country when bees or bee products were introduced or imported.

How American Foul Brood is Spread.

When a colony or colonies of bees become infected with this disease, the brood nest and its stores of honey as well as the various parts of

the hive sooner or later become contaminated with the infecting organism (bacillus larvae). The infection becomes more and more abundant and concentrated as the larvae die in increasing numbers in the colony. Usually the dead larvae or their remaining scales in this disease are so offensive and adherent to the sides of the involved cells the bees do not readily clean them out as in European foul brood and Sac Brood.

Finally the infected hive becomes a veritable charnel-house which the colony often in desperation, as it were, forsakes and swarming out migrates to quarters new. Such deserted hives are readily preyed upon by bees from other colonies, and when they do so they unwittingly carry back to their hives infected honey, etc. In other cases, where the colony of an infected hive does not abscond, it suffers gradual depletion of its population from the high death rate in its brood and in time becomes weakened and discouraged. Such colonies are apt to be easily robbed, for their defence is reduced in numbers and vigour. Robbing, therefore, is one of the commonest means by which infection is spread from colony to colony in an apiary or from one apiary to adjacent ones. The drifting of bees from one hive to another in an apiary is also a fruitful source of disseminating the infection.

Infected honey (especially brood chamber honey) transported from one locality to another and exposed accidentally or by direct feeding to bees may readily distribute infection over a wide area or even transfer it from one country to another. The spores of bacillus larvae have been proven to remain alive and infective for years in honey.

The bee-keeper himself often unwittingly or carelessly spreads the disease in his own apiary, or may transfer it from one apiary to another when he moves combs of honey and brood on from one colony to another or from one apiary to another. Transfer of infection from one colony to another may even result when supers from known or unknown infected colonies are returned after extraction to healthy colonies. The uniting of weak colonies or the building up of weak colonies with brood from an apparently strong but actually infected colony may also spread the disease. Accordingly the disease may be spread within an apiary or to adjacent or even distant apiaries in very many ways, but they all may be resolved into a transfer of infection either by the bees themselves transporting infective honey and wax, or by the apiarist in his various manipulations and practices.

The transfer by sale or otherwise of contaminated apiary equipment and fixtures is also one of the many ways by which the disease is spread from one locality to another. Consequently all wise bee-keepers should be careful in purchasing empty used hives, frames, etc., from apiaries which have died out or been given up from any cause, unless they are certain the used or second-hand materials are beyond suspicion. Whenever such material or fixtures are acquired even from apparently clean sources it is advisable to make assurance doubly sure, and before it is removed from the place of purchase to thoroughly clean and disinfect it by scorching with a gasoline blow lamp or other means. Although commercial honey may spread the disease, experimental evidence indicates that it is not as dangerous as is generally supposed.

According to the Report of A. P. Sturtevant, Associate Apiculturist, Division of Bee Culture, Bureau of Entomology, U. S. Department of Agriculture in paper "Relation of Commercial Honey to the Spread of American Foul Brood" and based on a five years' study of the problem:—

(i) "It has been found that, in order to produce American foul brood in a healthy colony of bees, the sugar syrup used for inoculation must contain a certain initial number of spores of Bacillus larvae (the causative microbe of the disease). Seventy three colonies were inoculated (infected) during this time with numbers of spores ranging from approximately 50,000,000 spores to 100,000 spores per colony; 30 of these colonies receiving 50,000,000 spores or less, of these 30 colonies, 2 out of 11 receiving 50,000,000 spores showed infection, but no colony receiving less than that number (50,000,000) of spores developed disease. Therefore, the minimum infectious dose of Bacillus larvae for a colony of bees seems to be approximately 50,000,000 spores in 1 liter (a little more than a quart) of sugar syrup."

(ii) "It was found possible to demonstrate the presence of spores of Bacillus larvae in 15 out of 187, or in 8 per cent. of the samples of commercial honey examined by means of the centrifuge and the microscope. The preliminary results indicate that, even though spores of Bacillus larvae may be demonstrated in a certain percentage of samples of commercial honey, in most instances they are probably present in such small number as to be less than the minimum number, *50,000,000 per liter, found to be capable of producing disease, and* therefore are ineffective in the spread of American foul brood."

Commercial honey is generally taken to mean honey extracted from supers or produced in super-imposed sections: not honey from brood chamber combs. Therefore and to assist in maintaining the status of commercial honey as "ineffective" in the spread of American foul brood as well as its freedom from suspended pollen, dead larvae and debris from the brood chamber, bee-keepers are advised and urged not to mix super-honey with brood chamber honey. Every means should be employed to raise and maintain the quality of our commercial honey, for it is quality that counts and sells any product.

The manner of spread of European foul brood is still not well understood, although "there is some evidence that the infection is carried chiefly by nurse bees." Honey from European-foul-brood-infected colonies has been given to healthy colonies without inducing the disease, provided the healthy colonies are of such strain and in such strong and vigorous condition that they are able to resist the disease. Such a procedure in American foul brood is certain to produce infection.

The mode of spread of Sac Brood is still undetermined in many respects, but there is evidence that robbing is one means and also a strong probability that the drinking water of bees may become contaminated by fragments of sac-brood-dead larvae removed from the cells by the bees, and in such case the virus may readily be carried to healthy colonies and fed to the larvae by nurse bees.

Law and Order Governing Bee Diseases in Jamaica.

The Protection from Disease (Bees) Law, 1918, *Law* 9 *of* 1918 *and the Order thereunder.*

In view of the existence of American foul brood in Kingston and St. Andrew and its possible appearance in other parishes of the Island and the obligations laid upon bee-keepers under the Law and the Order

to report and assist in the notification and suppression of this dise and any other disease listed under the Law, the attention of apiari and managers of apiaries is invited to the following special sectic of the Law and clauses of the Order made thereunder on Noveml 15th, 1934.

Law 9 *of* 1918.

Section 2. In this Law the expression "Disease" means the disea known as "Foul Brood" and "Isle of Wight" Disease of Bees" a any other disease which the Governor in Privy Council by not published in The Jamaica Gazette may declare to be a disease for t purposes of this Law.

Section 6. (i) Every owner or person having the charge or manag ment of an Apiary who knows of or suspects the existence of a disease in such Apiary shall with all practicable speed give notice writing to the Director of Agriculture of the fact of the Apiary bei so infected or suspected and shall in such notice give all informati in his power as to the extent and nature of such disease. The sa notice shall be served personally on the Director of Agriculture or sh be addressed to him by registered post.

(ii) Where the owner or person having the charge or manageme of an Apiary is charged with an offence under this Law he shall presumed to have known of the existence of the disease, unless a until he shows to the satisfaction of the Court that he had not knowled thereof, and could not with reasonable diligence have obtained th knowledge.

Order made under Law 9 *of* 1918 *on November* 15, 1934.

"The Protection from Disease (Bees) (Foul Brood) Order, 1934.

Clause 1. Every person having the charge or management of ar hive of bees or Apiary within the Island shall with seven days from the date of this Order report writing to the Director of Agriculture, Kingst Post Office, the site and number of hives whi are in his possession.

2. No person having the charge or management of a hives of bees or Apiary within the parishes of Kingst and St. Andrew shall move or cause to be move any bees, queen bees, hives of bees, honey, wax any materials that have been used in connectic with any hives of bees except by a permit in writir from the Director of Agriculture first had an obtained.

3. Where any hive of bees is found to be infected with th Foul Brood Disease of Bees, the owner or perso having the charge or management of such hiv shall immediately notify the Director of Agricultu in writing and forthwith entirely destroy the san with fire. The stands or other fixtures on whic such hives have been kept shall also be burnt wit fire or tarred completely with boiling tar.

4. The owner or person in charge or control of an Apiar within the Island shall on the publication of th Order in the Jamaica Gazette forthwith examin the brood nest of each hive and shall destroy a hives where Foul Brood is present in accordanc with this Order and shall thereafter examine eac

hive at least once in every three months and continue to destroy infected hives in the manner hereinbefore provided.

This Order of November 15th, 1934 will probably be superseded by a fuller Order which will include even more drastic restrictions and provisions, one of which will make it contrary to Law to keep bees in "turn-down" boxes, because the health of the brood in such types of hives cannot be determined or supervised satisfactorily by inspection. Besides, it is not a proper or up-to-date method of keeping bees.

Perfect Sight

WORLD FAMOUS

SELLER'S PURE LOTUS HONEY

A reliable remedy for all sorts of

EYE DISEASES.

It cures inflammation of the eyes—Imperfect sight, Bloody eyes, Fleshy growth in the eye, Burning in the eye, Granular eyelids, Leucoma, Cataract, Glaucoma, etc., etc., If used in the healthy eye it keeps the eye cool, and renders it proof against future evils. Literature and prices obtainable from:

KINKEAD LTD. 20 KING STREET. KINGSTON.

You've been wanting this a long time............

Now we have secured it for you__________

KLEEN-SWEEP

FLEXIBLE STEEL PRONG-RAKE-BROOM

It removes the litter without injury to the grass.

AGUILAR'S

104 HARBOUR STREET.

MR. PLANTER !

You are losing time and money

OUR SPECIAL BANANA FERTILISE

(the formula of agricultural chemists)

has been prepared to produce healthy banana plants---

helps in retarding the effects of

PANAMA DISEASE.

It is now used in several parts of the island with satisfactory results.

WE INVITE ENQUIRIES.

KINKEAD, Ltd. - Kingston

EDITORIAL COMMENTS.

AN AGRICULTURAL SURVEY.

A survey of the agricultural position of the colony is useful at any time, so important is agriculture to its prosperity and well being; but at this juncture when the future of most of our crops, both staple and minor crops seem so uncertain it is essential that such a survey should be made so that the true position should be realized not only by the farmer, whose individual interest it is, but by the Government whose revenues are nearly entirely dependent on our agricultural prosperity and also by our traders, professional men and investors whose commerce, profits, earnings and incomes fluctuate in close relationship to the ups and downs of the farmers fate. The Banana our main support, at this juncture is beset by handicaps despite the fact that it may appear to the superficial observer to be floating on a high tide of prosperity. Its permanent and uncontrollable enemies, the hurricanes and Panama disease are well known. Most banana properties are still weltering in the aftermath of hurricane, such aftermath being debt and restricted development. The Panama disease situation has to some extent been eased by the modified quarantine treatment; but can any one feel that any permanent betterment in this regard has been realized thereby, or rather it is not more a matter of salvage. We are fortunately assisted by preferences in England and Canada without which the industry may well have already been ruined and we cannot help thinking that these preferences were to a great extent influenced by our grand effort to market our fruit co-operatively ourselves. Now it seems that this effort is being assailed not only by competition well capitalised, organized, established and efficient but also by certain of the co-operators themselves who have deserted and so weakened the co-operative effort that we find a great fear growing that the future of our Banana industry is becoming dangerously precarious. Jamaica for many years yet cannot afford to do without our Banana Industry. We have planned nothing to replace it. The co-operative effort has certainly done one great service in Jamaica if it has done nothing else, and that is that it has provided a yardstick, a true measure as to the worth of a bunch of Bananas in Jamaica in relation to the prices of bananas in markets abroad. Roughly on the past performance of co-operative marketing with Banana prices averaging £17 per ton in England, Bananas are worth in Jamaica 3/- per count bunch, every additional £1 per ton on oversea prices means an additional 4d. per count bunch. For many years prices in England averaged £24 per ton so that the average worth per count bunch of Bananas in Jamaica during that period approximated 5/4d. per count bunch. During this period the average price paid to the farmer was around 1/6d. per count bunch a little more than a quarter of its true worth. Put another way: the oversea wholesaler then paid around 8/- for his count bunch, the Jamaica farmer got 1/6d. and 6/6 was consumed for services carriage and profits. However one looks at it the margins appear to be somewhat large. Comparing present day figures, the oversea wholesaler now pays 5/4d. for his count bunch, the Jamaica farmer gets at least 2/6 and 2/10d. (instead of 6/6) is consumed for services, carriage and profits. We are not claiming the above figures to be meticulously accurate but they are sufficiently so, to clearly and fairly define the position.

Only one thing can account for this narrowing of margins and that is the co-operative yardstick maintaining the correct measure of the

worth of Bananas in Jamaica and the desire of competition to depreciate its worth abroad. Yet we whose well being depend nearly entirely on the banana are allowing the yardstick to be broken and cannot agree as to how it is to be preserved. We do not contend that it is a matter for the banana marketing co-operator alone. It is as important a matter for the non-co-operator. It is every Jamaican's business. Our suggestions for its preservation may be made later in these columns. We however, must conclude that our Banana business has not entirely a happy outlook.

Our next largest industry,—the Cattle Industry has for some time been suffering an unrelentless pressure caused by a combination of circumstances. The demand for working cattle, a large branch of cattle rearing has been lessening, cattle for transport and traction being more and more displaced by motor trucks and tractors and latterly by rototillers and steam ploughs. The working cattle producer has to invade the beef market.

The Dairy Branch of the industry has been nearly wiped out by New Zealand butter being put on our local market below its cost of production.

The dairy man as far as he was able also had to invade the beef markets.

The bye-products of the Livestock Farms, Logwood and Pimento both encountered very depressed prices and subsequently Logwood has become nearly unsaleable and Pimento after encountering a restriction in demand due to German restriction of purchases have fallen foul of a rust disease, when it cannot even afford to pay for control measures and over large areas there has been an entire loss of this crop.

Lessened return from these two bye-products will increase the cost of producing cattle and milk.

Concurrently the depression has lessened the purchasing power of the community, and with all branches of the Live Stock industry dumping on the beef market, beef prices collapsed. Not a pretty picture by any means. We have done so far nothing tangible to protect ourselves, although we hope to. In the meantime we pay for Zew Zealand butter at dumping prices and seem to think that our population benefits from cheap butter, when it can buy hardly any luxury other than salt, owing to restricted expenditure on these farms for wages and conseq ent unemployment. We have already shown in these columns that the masses eat little or no butter.

Our Citrus Industry is being ruined by high freights and unmarketable varieties. It has prospects, but its present position is a very doleful one. We don't seem to be doing as much as we should about it. An attempt to unify marketing did not meet with the success it deserved Top working to standard varieties from lack of capital possibly, and lack of the progressive spirit probably, may be causes contributory to our inertia in this direction. Yet our faith in Citrus should be unshaken since it is the one crop of our major crops that we can produce cheaper than the large producing countries of the crop such as Palestine, South Africa, Florida, California, Texas. Also there is a large acreage of land in Jamaica suitable for citrus than there is of lands suitable for bananas or cane. It does appear to be the only crop capable of replacing the Banana when that old friend of ours reaches its death bed. Yet our outlook on it seems to be apathy and not enthusiasm.

For lack of space we plan to continue this agricultural survey in our forthcoming issues and will make suggestions as to what we consider necessary for the betterment of the situation.

To the Planters

After a long day in the hot sun there's nothing so stimulating as a drink of good rum.

You all know of the excellent quality of any

Charley's Rum

We advise for a light rum that is free from that common rum odour- - -

CHARLEY'S WHITE LABEL.

EDITORIAL COMMENTS, contd.

A SEARCH FOR THE PERFECT JAMAICAN ORANGE.

We reproduce elsewhere in this issue a circular appeal that has been made to the members and Branches of the Jamaica Agricultural Society with a view to financing the search for the perfect Jamaican orange. The circular explains the matter thoroughly but a few observations on the matter might not be out of place.

We have on very reliable information the fact that on account of the juiciness and beautiful flavour of the seeded Jamaican orange that despite the prejudice against seeds it has made a name in Canada and the demand has been so good that it has been difficult to fill. The same thing may be said to apply to New Zealand in a lesser way. In Canada it has been stated that most of our oranges are used as fresh oranges and drunk, not eaten and so the question of the seeds has not militated quite so largely to its disadvantage. Nevertheless Canada consumes an enormous amount of oranges and they eat much more than they drink. We should seek to fill as much of their demand as we can because the markets are very convenient ones to us.

The Secretary of the Jamaica Agricultural Society has asked all Instructors to keep a sharp watch for any native varieties of oranges that seem to hold a special promise either from being early producers, late producers, or seedless, or near seedless, and quite some good specimens have from time to time been submitted by several of them.

We feel however that there is a better orange somewhere yet to be found, and the mover of the resolution referred to in the circular also feels that way. When it is remembered that the hundreds of thousands of orange trees that we have are all seedlings rather than grafted trees, and being seedlings carry many variable attributes, the possibilities of an intensive search among them revealing desirable types, is not at all so remote as to be discarded.

Whilst we have not circularised the public or the commercial community, we do think that the spending power of the community is so important to every one in Jamaica that they too should spare a shilling for the fund. We are very hopeful that real benefit will result from having an Island-wide Competition which may successfully reveal outstanding citrus varieties of great commercial value.

The Circular.

Jamaica Agricultural Society,
11 North Parade, Kingston.
June 8, 1935.

Dear Sir,

At the last Half-Yearly General Meeting of this Society held on the 10th January, 1935, the following resolution was brought forward by the Rev. E. B. Baker, M.A., who is intensely interested in the growing of citrus in Jamaica:—

"Whereas from time to time we come across Jamaica grown oranges which are almost seedless, very early, and nearly perfect in quality—Be it resolved—

1. That steps be taken to ascertain what trees are bearing such fruit.
2. That this be done by means of Parochial Prize Competitions to be followed by further competitions to be arranged among the winners of the Parochial Competitions.
3. That a condition of competing shall be that the Government or the Society should be free to purchase at a fixed price any tree which appears to be of outstanding merit.
4. That budwood should be available to people desiring to start or improve their groves and trees.
5. That the Competition be held in September in order to secure early maturing strains."

The resolution was unanimously carried and referred to the Board of Management of this Society for action.

Unfortunately the Government subvention makes it impossible for us to undertake anything but ordinary routine expenditure for the forthcoming year, and in view of the importance of carrying through the objects of the resolution, I have decided to make an appeal to members and Branches of this Society for subscriptions towards a Shilling Fund by which we hope to raise about £30, when prizes will be offered in the terms of the resolution and the various important objects achieved thereby.

I commend the movement very highly for your esteemed consideration and ask you to subscribe a shilling to this very important object. All amounts will be acknowledged and receipt will be forwarded. A list of the subscribers will be published in the journal and, I hope, in the Daily Press.

A franked envelope addressed to the Secretary of the Jamaica Agricultural Society is herewith enclosed and which makes the remittance entitled to free postage.

Yours faithfully,
GLAISTER BAXTER,
Secretary.

SPRAYING AND LIMEWASHING

VERMOREL "ECLAIR" SERIES

The "Fog" Sprayer

The "FOG" SPRAYER—Prices Complete 26/- & 30/-.

This small and easily handled machine gives a very fine mist-like spray. IT IS FITTED WITH A VARIABLE NOZZLE WHICH CAN BE ADJUSTED INSTANTANEOUSLY TO THROW A SPRAY TO ANY DISTANCE BETWEEN 20 INCHES AND 10 FEET FROM THE NOZZLE. The Liquid to be sprayed is drawn from the container and as a result spraying is carried out easily and quickly without the delay of re-charging which occurs when a syringe is used. The Spray ceases immediately pumping is stopped and economy of the spray liquid results.

Made of Brass. Made in two sizes $1\frac{3}{4}$ and $3\frac{1}{2}$ pints. Weights $2\frac{1}{4}$ lb. and $2\frac{1}{2}$ lb.

OTHER SMALL HAND POWER SPRAYERS FROM 24/- TO 42/- EACH.

All Types of Wet and Dry Sprayers Made AND STOCKED.

$1\frac{3}{4}$ pints to 30 gallons. PRICES FROM 10/3 TO £72 0s. 0d.

Catalogues and full particulars from:

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24/26a Christopher Street, London, E.C. 2.

ANNOUNCEMENT.

Banana property for Sale: a profitable investment, situated in St. James, 778 acres, 64 now in good cultivation and at least another 250 acres of first class virgin banana land as well as a further considerable acreage for profitable banana cultivation. Rainfall abundant. Further particulars can be supplied to bona fide enquirers. Apply to

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GOVERNMENT SAVINGS BANK

OUR BANK

An account may be opened with the small sum of 1/-

It will surprise you how these small amounts grow. You plant the shillings and watch how they grow to pounds.

114 Branches throughout the Island.

Free Postage and Registration to Head Office make it easy to plant *the shillings*.

Particulars regarding the Annual Summer Course of the Department of Science and Agriculture at Hope are published below.

Special attention is drawn to the Railway concession in connection therewith and special attention is drawn to the necessity of making early application for the Secretary's certificate to ensure such certificate reaching the applicant on good time.

Ed.

DEPARTMENT OF SCIENCE AND AGRICULTURE, JAMAICA,

SUMMER COURSE OF LECTURES AND DEMONSTRATIONS.

A Summer Course will be held from July 22nd to 26th, inclusive, when a series of lectures and demonstrations will be given by the members of the Staff of the Department. There lesctures and demonstrations will be open to all members of the public.

Arrangements will be made for the provision of sleeping accommodation up to a maximum of 40 persons and meals at the following rates:—

Lunch	1/6d. per head
Accommodation including all meals from lunch Monday to breakfast Saturday	£1.

Bookings for accommodation and meals must be made in advance to the Headmaster, Farm School, Hope, Kingston P.O. All applications must include a remittance in full. No reservations will be made or meals served unless payment has been made in full beforehand.

Applications for accommodation and meals must be sent in so that they are received not later than Wednesday, July 17th.

Programme will be announced later.

(Sgd.) A. C. BARNES,
Director of Agriculture.

SUMMER COURSE OF LECTURES AND DEMONSTRATIONS, 1935.

Programme.

Note.—All lectures will be given at the Farm School, Hope, unless otherwise indicated.

Monday, July 22nd.—

2 p.m.	Opening of Lectures and Demonstrations Lecture—"Animal Husbandry." Dr. S. Lockett, V.M.D. General Inspection of Farm and Experiment Station
4.30 p.m.	Visit by His Excellency the Governor.

Tuesday, July 23rd—

8 a.m.—12 noon	Demonstration—"Manufacture of Wet Sugar" at Government Laboratory. Also general discussion on Cane Farming for Small Settlers. Messrs. R. S. Martinez and M. S. Goodman.
2.15 p.m.	Visit to Jamaica Coconut Producers' Factory.
3.15 p.m.	Visit to Beacon Match Factory.

Wednesday, July 24th—

9.15 a.m.	Visit to Messrs. B. & J. B. Machado's Tobacco Factory.

11.15 a.m.	Visit to Low Temperature and Marketing Experiment Station.
2.15 p.m.	Lectures (a) "Vegetable production for export" (b) "Diseases of economic crops"—Mr. F. E. V. Smith, B.Sc.
Thursday, July 25th	Half-Yearly Meeting of the Jamaica Agricultural Society.
Friday July 26th	
8 a.m.—10 a.m.	Inspection of Banana Varietal Plots at Hope Gardens.
10 a.m.—11.30 a.m.	Lecture—"Farm Practice in Banana Production"—Mr. Glaister Baxter.
11.30 a.m—1 p.m.	Lecture—"Insect Life in Jamaica"—Mr. W. H. Edwards, D.I.C., F.E.S.
2.15 p.m.—3.15 p.m.	Lecture—"Diseases of Bees"—Dr. S. Lockett, V.M.B.
3.15 p.m.—4 p.m.	Lecture—"The Marketing of Honey"—Mr. P. M. W. Murray.

N.B.—Any officer or member of the Jamaica Agricultural Society attending the Summer Course will be granted a return fare by the Jamaica Government Railway for the price of a single ordinary fare on production of a certificate signed by the Secretary of the Jamaica Agricultural Society.

Early application for such certificates should be made to the Secretary of the Jamaica Agricultural Society.

IT IS OF CAPITAL IMPORTANCE *that....*

all milk used in the household should come from healthy cows, fed in the country, on rich pastures, that it should be perfectly pure and safe, with all vitamins and nutritious elements left intact.

This can only be attained where best organisation and conscientiousness co-operate. In this respect, the name of **Nestle's** means full guarantee. Indeed the Nestle Company is always on the level with the most up-to-date scientific methods for the manufacture of milk products. ***Therefore . . . . .***

IT IS OF CAPITAL IMPORTANCE

When buying Condensed Milk to always Insist upon :

NESTLE'S MILK

AND SAVE THE VALUABLE LABELS !

SOME BRIEF AGRICULTURAL NOTES FROM THE HON. A. C. BARNES, DIRECTOR OF AGRICULTURE.

---

1. "The Agricultural Chemist has found that the ash of banana trash varies considerably in its potash content according to whether it has been recently burnt or exposed to the weather for some time. Recently burnt ash contained about 9% of potash and was therefore of value as a manure, but exposed ash contained only 1% and was not worth while the trouble of carting away. Persons to whom permits have been issued for the removal of the ash of banana trash from various Railway Stations are cautioned in their own interests to see that they obtain only fresh ash."

2. "The importance of carefully selecting sugar cane varieties for the different conditions of soil and climate in the sugar-growing districts is demonstrated by a recent trial in the Cambridge Valley where B.H. 10/12 and P.O.J. 2727 were planted in strips through a field of the shotty soil found there. Although the canes received identical treatment, the yield of the B.H. 10/12 is estimated at 7 tons per acre and that of the P.O.J. 2727 at 25 tons per acre. This is of particular interest in view of the high yielding qualities of B.H. 10/12 when planted in suitable locations."

3. "Considerable success has been obtained by the use of Jerusalem Pea as a cover crop under bananas. It appears to be the nearest approach to the ideal cover crop for bananas yet found. Although it has the disadvantage of climbing, it can be easily controlled."

CROPS DON'T JUST GROW!

EFFICIENT FARMERS GROW THEM AND

THEY FERTILIZE

WITH

BAT GUANO and PERUVIAN BIRDS GUANO

THESE ARE

ORGANIC MANURES.

The land building qualities of organic manures are universally recognised. In other countries organic fertilizers are more expensive than are inorganic fertilizers.

Our product being fortunately produced within the Island, we can supply as cheaply as imported organic fertilizers.

WE GUARANTEE ANALYSIS

WE OFFER EXPERT SOIL SERVICE

We gladly test soils for acidity, available nitrogen, phosphoric acid and water soluble potash, and supply mixtures suitable to the needs of the individual buyer. We don't sell blindly nor wish you to buy blindly.

We count among our customers some of the best known Planters in Jamaica.

For Quotations apply, J. M. WHITESIDE, Falmouth.

At the request of several esteemed members of the Society we have considered it wise to publish this article on the history work and progress of the Jamaica Agricultural Society from its inception to recent date. A similar article was written by the late Secretary, Mr. John Barclay, O.B.E. and this article forms the basis of the present one and such additional information as has been considered necessary to bring the information up to date has been included.

We trust that our members and readers will be interested in the progress that has been possible despite various difficulties that have arisen at different times, and that they will feel convinced that our Society holds great potentialities for the improvement of the agriculture of the Colony and the increased prosperity of its agricultural population which forms such a large proportion of the whole. The Agricultural Society certainly deserves the support of the entire Community and we take this opportunity of appealing for such support not only from the standpoint of increased usefulness to the Colony that such support would make possible, but also from the standpoint that the larger the membership of the Society the more organised will the agriculture of the Colony be and the more effective their organization would be for their own welfare.

Ed:

THE HISTORY, WORK AND PROGRESS OF THE JAMAICA AGRICULTURAL SOCIETY.

Inauguration: The Jamaica Agricultural Society was inaugurated under Sir Henry Blake's administration on the 7th May, 1895. The Board of Management then consisted of the President, four Vice-Presidents, the Elected Members of the Legislative Council, an equal number elected by members of the Society and an equal number nominated by the Governor. Towards the expenses of the Society until its work was properly organized, the Legislative Council granted £1,000. At that time the only body dealing with agriculture was the official body named the "Department of Public Gardens and Plantations" under a Director, then Mr. Fawcett. There was no Government Chemist, Microbiologist, Entomologist, Veterinary Surgeon, Soil Chemist or Geneticist as at present.

The objects of the Agricultural Society as stated at its inception were to disseminate useful information, encourage the improved cultivation of produce, and better breeds of stock; and to watch over the interests of agricultural industries. The first work it engaged on was for special Committees to make enquiry into the exact position of every industry, our markets, what could be done to improve the quality of our produce, whether the number of our products could be added to, and new industries developed, and also whether we could find new markets and better means of shipping our products to these markets. Full reports were published on these subjects. It also advocated the establishment of a stock farm, which later became an accomplished fact under the Department of Agriculture.

The next consideration was to reach the people with information, to inform them of the objects of the Society, shew what it was doing, what it proposed to do, and what it could do with the co-operation of the community, and generally to try and arouse an earnest interest and enthusiasm in our one and only industry—Agriculture. It has proved a long and stern struggle, with many setbacks. There was a et conservatism, indifference and ignorance of what was being done

elsewhere, but generally a good-humoured tolerance (with some grumbles that the Society was a waste of public money) of our operations because of the strong belief that the Society would soon quietly expire "unwept, unhonoured and unsung."

In 1897 the Legislative Council made a grant of £4,000 for the operations of the Society. The first number of the Agricultural Journal appeared in January, 1897, and has gone on without break except that after the earthquake in 1907 when the Printing Office was destroyed with the January number of that year ready for issue, two three-monthly numbers had to be issued.

A system of Branch Societies was inaugurated and a Travelling Instructor in Agriculture, seconded from the Department of Public Gardens and Plantations, Mr. Cradwick, originally from Kew, was appointed.

One of the early activities of the Society concerned the making of Jippi-Jappa hats which was confined to districts in the parish of St. Andrew. The plant which produces the straw to make the hats (Carludovica jamaicensis), was hardly known elsewhere.

The Society distributed plants in suitable districts and held classes in hatmaking. Unfortunately this important cottage industry is languishing due to the competition of cheap hats of somewhat similar weave being imported into England from Guayaquil. These hats are made by native Indians who have a much lower standard of living that that of our people, hence cost of production is not as high as in this country.

From 1907 to 1910 there were imported for private members and for Branch Societies rams of milch breeds of goats as follows:—Old English, Anglo-Swiss, Anglo-Nubians, Anglo-Toggenburg and pure bred Toggenburg. But this effort was not kept up and the blood was largely lost. During the last 5 years a few importations of the Saanen breed, noted for its milk qualities, have been made. Many good specimens of the breed now exist in Jamaica, but the dairy goat cannot be said to have become as popular as it should.

Before the Government Stock Farm was organised the Society imported stallions and bulls and had them available for service in different districts of the Island. We also gave a premium for the service of selected native stallions and bulls. We imported stock for private owners and still continue to import small stock and poultry every year. The Government Stock Farm can now supply practically all the larger stock required.

In 1898 the Society strongly impressed on the Government the necessity of having an Agricultural Chemist. The first holder of the position, Mr. Francis Watts, who later as Sir Francis Watts, was the first Principal of the Imperial College of Tropical Agriculture, was engaged by the Society although the position was soon made a Government one.

In 1908 the Department of Agriculture was formed by the amalgamation of the Department of Public Gardens and Plantations and the Government Laboratory.

In 1911 the Society made representations to the Government on the necessity of appointing a Microbiologist and Entomologist and the former post was filled the next year. The Entomologist was not appointed until 1916. The Government staff has been increased during past years by the addition of various other scientific officers.

The Choice of Thousands.

Every Christmas Hamper
should contain a $3\frac{1}{2}$ lb. tin

JAMAICA MADE

Assorted Sweet Biscuits.

Ideal to Give or Receive.

MANUFACTURED BY
THE JAMAICA BISCUIT CO., LTD.

50 (Average) for **$\frac{1}{2}$d.**

The Beacon, made locally from Local Wood, by Local Labour, with Local Capital, gives you the

BEST MATCH VALUE

in Jamaica to-day. When you Buy Beacons you

HELP YOURSELF and HELP YOUR COUNTRY

Selling Agents for Beacon Matches: *Lascelles deMercado & Co. Adolph Levy & Bro.*

Branches.

The system of Branch Societies expanded steadily and demands for the services of Instructors became more and more pressing. The number of Instructors was increased as rapidly as possible, as the table below shews:

Year.		Direct Members.	Branches.	Members.	Instructors.
1897	..	364	6	300	1
1910	..	500	63	3,300	11
1923	..	571	267	7,621	16
1933	..	561	265	4,798	20
1934	..	727	286	5,333	21

In addition to the Instructors we have one Supervisor of Instructors who supervises the Instructoral work throughout the Island. Even with a larger number of Instructors it was found that they were unable to satisfy the many demands for service in their extensive areas. A Committee was formed and carefully considered the situation. As a result a recommendation was made that the district of each Instructor be divided into several zones and the Instructoral work be arranged to enable the Instructor to give more intensive attention to a smaller area for a certain period and then move on to another zone. Three agricultural headmen were also appointed in 1934 and assigned to assist the Instructors in certain areas. This experiment proved very successful, but owing to lack of funds it has not been possible to increase the number of agricultural headmen.

There are now 21 Agricultural Instructors, each with a regulated district. Their work is very important as they are required to give agricultural demonstrations, attend meetings of Branch Societies, make records of attendance, attendance of Authorised Persons and subjects discussed, speak on subjects of local importance and generally regulate local agricultural matters. They take an interest in local Loan Banks and help to establish these, but are not allowed to act on local Loan Bank Committees, but may advise and help to regulate wherever these have not able local assistance already. Nearly all the local Loan Banks have been established through our local Branch Societies, but are kept as distinct bodies.

The work of the Instructors is governed by a Committee which meets every month. Each Instructor submits a proposed itinerary of his work for each working day on which must be stated the time and place he will be at work each day, so that the Supervisor of Instructors may appear there without previous advice and go through the day or the week with him.

The broad details of the Instructors' work are arranged by the Planning Committee, which in this way co-ordinates the activities of the Instructors in the various districts. Immediately after the end of each month the Instructors send in actual itineraries of work done for each day, shewing the number of holdings visited, number of demonstrations given, meetings attended, attendance and number of Authorised Persons present to give reports of their work. They also submit a general report under headings, and also report on crops. These reports are submitted to the Instructors' Committee and a copy of each is circulated thereafter to the Committee with an epitome by the Supervisor of Instructors.

The Instructors are not paid official travelling expenses but are paid from £275 to £500 according to grade to cover salary and travelling This system is simple for accounting purposes but often works hardship

as the more work they are called upon to do the less they get for themselves. But I am glad to say that there has been an *esprit de corps* established and Instructors have worked loyally and have responded to all calls.

We are in the position now that unless we have several young assistant Instructors in training we shall not be able to replace those who retire. The work is too important and the responsibilities too great for us to turn loose any untrained men.

Competitions.—

From early in its life the Society found that a good method of increasing effort amongst small cultivators is by means of competitions. Prize Holdings Competitions and various crop competitions have been a feature of the work of the Society throughout its existence, and have undoubtedly done a great deal to raise the standard of cultivation and preparation of crops for market, whilst the Prize Holdings Competitions furnished incentive for a great improvement in buildings and in the amenities of the home.

At first judging of the Prize Holdings Competition was done on the closing date, but later we realized that the same people frequently won, so the prize were afterwards awarded on the basis of marks for improvement, which necessitated judging at the time of entry and again six months later. For the past few years the Government has found it necessary to discontinue the Prize Holdings Vote due to the financial situation. The Society is confirmed in the opinion that well organised

FERTILISERS.

The Jamaica Agricultural Society stocks fertilisers for the convenience of small users.

We sell from 1 lb. to 1 ton.

ADVICE AS TO APPROPRIATE FERTILISERS WILLINGLY GIVEN ON APPLICATION.

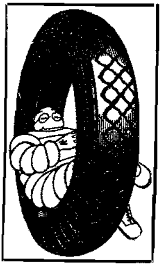
Every farmer should institute some small trials to gather experience.

Fertility of Soils must be maintained if we are to exist.

EVERY—
"MICHELIN"
Tells the STORY—
Of its RIDE to FAME
and GLORY.

-BURKE'S-

SERVICE



STATIONS

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Half-way Tree.

70, Harbour St.

Constant Spring.

competitions, even though the prizes are small, are the best incentive to steady, continual improvement.

Shows.—

Agricultural Shows are among the important activities of the Society. These are usually sponsored by Branch Societies and encouragement of the competitive spirit has helped to raise the standard of agricultural produce. It has been found, however, that these random Shows lack continuity of purpose and a scheme is being considered to bring in all Shows under the control of a Central Committee so that they can be planned to ensure regularity and be of maximum benefit to agriculture in the Island.

Results of the Society's work.—

Instructors have done and continue to do very useful work by waging an unceasing warfare on the wasteful methods of shifting cultivations. Their campaigns against the evils of soil erosion, burning of vegetation on the land, and the barking of trees, have been of great importance. They have succeeded to a great extent on impressing upon the settler, the need of proper drainage; both for the removal of excess water, and for the control of soil wash. The necessity for the proper attention to and pruning of permanent fruit trees and such crops as coffee and cocoa is constantly being stressed, and in many districts encouraging results have been obtained. There was, and in some cases still is, a good deal of initial inertia to be overcome before the cultivator can be convinced that the method, or lack of method, that was good enough for his grandfather may not be good enough for him in these days of greater competition and smaller margins of profit.

Problems that still remain to be solved are the adoption of proper crop rotations, the use of green manures and cover crops, and the controlled use of artificial fertilizers. Demonstration farms to be operated in conjunction with the Department of Agriculture are to be instituted during the coming year and the solution of these problems will no doubt be undertaken then.

Seeds.—

An important part of the Society's operation is the Seed Department, which procures supplies of high quality vegetable seeds to retail to members at reasonable prices. Great improvement in the quality of the crops has resulted and the regularity of repeat orders from members is the best testimonial to the reliability of the seeds provided.

Besides vegetable seeds large quantities of Seed Potatoes are imported each year; much more favourable terms being obtained than would be the case if each small planter had to import his own.

Artificial fertilizers are also sold in increasing quantities as well as various stock and poultry feeds and medicines. The manufacture of these foods provides an important outlet for corn, guinea corn and rice grown by members. Approximately 5,000 bushels of the various grains is handled per annum. Assistance is also given to members in marketing their produce such as peas and potatoes. A corn drying kiln with ample storage space is planned to be erected in the future. This will be a very real help to members as the disposal and storage of surplus corn crops has been a difficult problem in the past.

The Seed Department also imports and distributes for trial small lots of seed of crops which are not grown here, but which in other countries give promise of being of great economic importance. Recent examples are the distribution of Soya Beans and the importation of

experimental lots of Tung Oil seeds, Macadamia nuts, Bracatinga seeds and several other minor plants.

The annual sales of the Seed Department averages over £4,000.

Authorized Persons.—

One of the drawbacks to more extensive cultivation in Jamaica, especially of small crops but applying also to bananas, is praedial larceny, the stealing of crops, petty perhaps if we consider each theft, but in the aggregate the value is very considerable. But there is also the annoyance, the constant nightly watch which must be kept in many instances, and the expense and difficulty of securing conviction. In order to check this and as an adjunct to the efforts of the regular police and district constables, the system of Authorized Persons was established that is, persons authorized to arrest thieves found in the act, or persons suspected of the theft of crops. Furthermore the distinction between praedial larceny, i.e., larceny of growing crops in the fields, and common larceny of agricultural produce was abolished, so that the cured produce such as coffee, cocoa, etc., wherever stolen, came under the Authorized Persons' Law. They were further empowered to stop suspected persons on the road if they had reasonable ground for suspicion. There are 2,678 Authorized Persons registered on our books.

Juvenile Branches.—

A very important development in the work of the Society which has recently taken place is the encouragement of the formation of Juvenile Branches in connection with the adult Branch Societies. Many of the juveniles show marked keenness and have made great progress under the tuition of the Instructors. The importance of this work can hardly be over-estimated, because many of the children of to-day are the potential agriculturists of the future; and the sound basic training given whilst their minds are in the most receptive state will prepare them for the more scientific practice of intensive cultivation which must become necessary from the increasing pressure of population on the land.

Administration.—

The Governor of the Colony has always consented to be President of this Society. On most occasions the Governor *pro tem* has presided at the Half-Yearly General Meetings. Both the delegates from the Branch Societies and the Direct Members highly appreciate the privilege of addressing the head of the Administration direct. His Excellency Sir Edward Denham presided at the monthly meeting of the Board of Management held on the 7th December, 1934. This was the first occasion in many years on which a Governor has presided at such a meeting, and the appreciation of the Board of Management was expressed to His Excellency.

The Board of Management is composed of the President, three

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ed Vice-Presidents and 14 elected members, besides two ex-officio ibers, the Honourable Colonial Secretary and the Director of culture. This Board of Management manages the affairs of the ety. The Secretary carries out the instructions of the Board. eral Meetings of the Society are held half-yearly. Each Branch ety is entitled to send one voting delegate and all direct members entitled to attend and vote. The Secretary reports to the meeting he work of the Society during the preceding half-year; and matters ting the policy of the Society or the agricultural welfare of the ny are discussed.

nce.—

r funds the Society is dependent on annual subvention from ernment. This subvention has varied during the last six years een £8,500 and £11,000 with an additional grant usually £500 the Beekeeping Industry. A further sum of £400 to £600 per m is available from the profits of the Seed Department. Subtion and affiliation fees from members and Branches do not cover ost of the Journal which is sent to members without extra charge. ng the past few years the Society has been forced to draw on its ves which are now exhausted. When we realise that the subion for the current year is actually smaller than that of six years whilst the range of activities of the Society has expanded consider, it will be seen that the possibilities of further constructive develop are seriously curtailed. Everything possible has been done to ess on Government the absolute necessity for further funds and hoped that if the general financial position continues to improve ase of the Society will be favourably reviewed. In the meantime, y effort is being made to carry on as long as possible without any ilment of the activities which have proved of such great value to agricultural welfare of the Colony.

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* * * * *

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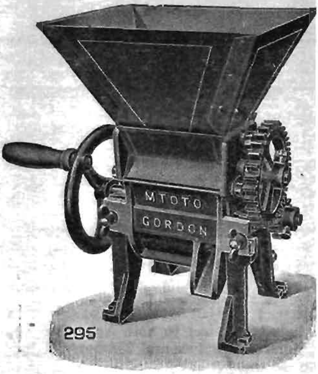

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EDITOR'S LETTER BOX.

I notice a growing tendency to apply the word "Thoroughbred" wrongly, and I would like to correct this. "Thoroughbred" is used only in connection with a horse, as such, not all horses are thoroughbred either.

I have seen quite lately, advertisements regarding thoroughbred cattle, dogs and fowls. This is wrong, the proper word is "Purebred."

Mandeville, (Sgd.) P. St. L. Bacquie,
18th June, 1935. Supervisor of Instructors.

* * * * *

The Editor,
Sir,

Having regard of the fact that some time ago, the Government issued some poisonous cure for black ants, or for killing them, but being poison the general public did not go in for it; but now I have discovered a permanent cure for them—viz.: Tar. My holding was infested, every tree. I tried many things without success, ultimately, I tried tar, by wrapping an orange tree with cloth then putting on the tar, also two other trees, and watched them for some time, and I found that all the ants were gone from my place. Kindly publish this in your valuable Journal, that others may see and treat their trees also.

I am, etc.,
(Sgd.) J. A. Watson,
President Cascade Branch.

Cascade P.O.,
12th June, 1935.

* * * * *

The Editor,
Sir,

Has it ever been advanced to you, as it has recently been to me, that the reason for the low price of cattle, which prevails, is the introduction of the Dipping Tank on the cattle farms of the Island?

A breeder informed me, recently, that previous to the introduction of Dipping Tanks, you could always depend on a mortality of at least 75% among the droppings of a year. Consequently, there never was any surplus of cattle; but instead, mostly always a shortage, and again consequently, the price of cattle was kept up!

Your Society will probably therefore consider the advisability of recommending the abolition of Dipping Tanks in Jamaica!

I am, etc.,
(Sgd.) J. M. Nethersole,
Kingston. 23rd May, 1935.

What has been said to Mr. Nethersole is an excellent example of perverted reasoning, whilst the efficiency contributed to stock rearing by the cattle dip does help towards increased production it should also contribute to lower cost of production. Lower cost of production should enable the live stock breeder to put cheaper meat on the market and so increase its consumption which would in turn offset increased production.

The fact is that there is no over production just now of sufficient volume to account for present market conditions. There are other

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influences at work that we have heard of influencing the market, beside the normal influences of supply and demand.

The sarcasm of Mr. Nethersole's last paragraph is very scathing, and of course we have no intention of suggesting to the Secretary of the Society to invite his Board of Management to consider the abolition of Dipping Tanks.

ANNOUNCEMENT.

Irrigated Banana Land on Liguanea Plains.—

Investors interested in irrigated banana properties on the Liguanea Plains of St. Andrew, should get in touch with the Secretary, the Jamaica Agricultural Society, who can put bona fide enquirers in contact with owners of banana lands with water available and some cultivation already established.

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ORDER BY THE GOVERNOR UNDER SECTION 2 OF THE PROTECTION FROM DISEASE (PLANTS) LAW 1925 (LAW 10 OF 1925) PROHIBITING THE REMOVAL OF ANY BANANA SUCKERS OR PLANTAIN SUCKERS EXCEPT UNDER THE CONDITIONS STATED THEREIN.

The Protection from Plant Disease (Banana and Plantain Suckers) Order, 1935.

Whereas by Section 2 of the Protection from Disease (Plants) Law 1925, Law 10 of 1925, it is enacted that it shall be lawful for the Governor from time to time to issue Orders for the purpose of preventing either the introduction or the spread of Plant Diseases or of any particular Plant Disease named in the Order and that such Order may apply to the whole Island or to any particular parish or part thereof:

And whereas the Panama Disease of Bananas was on the 18th June, 1925, declared to be a notifiable Plant Disease by the Governor in Privy Council by Order published in the Jamaica Gazette; and whereas The Black Weevil Borer of Bananas was on the 18th June, 1925, declared to be an infectious Plant Disease by the Governor in Privy Council by Order published in the Jamaica Gazette:

Now therefore I, Sir Edward Denham, Knight Grand Cross of the Most Distinguished Order of Saint Michael and Saint George, Knight Commander of the Most Excellent Order of the British Empire Captain General and Governor in Chief in and over the Island of Jamaica and Its Dependencies, in pursuance and exercise of the powers conferred by Section 2 of the Protection from Disease (Plants) Law 1925 (Law 10 of 1925) and of all other powers in that behalf me hereunto enabling do hereby order and declare and it is hereby ordered and declared as follows:—

No person shall remove or cause or permit to be removed any banana suckers or plantain suckers from any place to any other place except under or by virtue of a permit in writing for the removal of such banana suckers or plantain suckers first had and obtained from the Director of Agriculture or an Inspector of Plant Diseases or any other person duly authorised in writing by the Director of Agriculture to issue such a permit: provided that this Order shall not apply to the removal of banana suckers or plantain suckers within the boundaries of any one holding property or estate held by the same owner or tenant, nor to the removal of banana suckers or plantain suckers from one holding property or estate to another adjoining holding property or estate if both are owned or rented by the same person or Company.

2. The Protection from Diseases (Plants) Law (Banana and Plantain Suckers) Order 1925, made by the Governor on the 18th day of June, 1925, and published in the Jamaica Gazette Extraordinary on the 22nd day of June, 1925, is hereby revoked.

3. The Interpretation Law 1926 (Law 26 of 1926) shall for the purpose of the interpretation of this Order apply in like manner as it applies for the purpose of the interpretation of a Law.

4. This Order may be cited as "The Protection from Plant Disease (Banana and Plantain Suckers) Order, 1935."

Made at King's House in the parish of St. Andrew, this 7th day of May, 1935.

(Sgd.) EDWARD DENHAM,
Governor.

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RUST DISEASE OF PIMENTO.

By F. E. V. SMITH, B.Sc., Government Microbiologist.

---

1. It seems desirable at this juncture to summarise the information which has been obtained up-to-date concerning the recent disease occurring in the Pimento crop so that the planting community may have such information as is available on the subject.

2. *Historical.*—There appears to be no evidence that this disease has ever appeared in Pimento either in Jamaica or elsewhere until a year or two ago. It has been suggested by various planters that the disease has occurred in the past but I have failed to find any records in the Department of this particular disease or in any scientific literature, and conversations which I have had with Mr. Ashby who was Microbiologist in the Colony for a very considerable time, tend to confirm that this disease has never been previously identified here. The first outbreak which was brought to the attention of the Department occurred in the Spring of 1934. Reports came in from Southern Manchester indicating that while the whole Pimento crop in this area had appeared to be quite healthy and gave promise of one of the biggest yields on records, it had, in a period of two weeks, been severely attacked by a new disease almost throughout the whole area south of Mandeville and from Porus to well over the St. Elizabeth boundary. During the Spring months of 1934 the disease also appeared in a number of places in St. Ann. Since my return from leave early in 1935, definite records of the disease have been received from every parish in the Island with the exception of Portland. In all probability the disease is also present in this parish but I have not had the opportunity of making investigations. As far as I am personally concerned I had not seen or had reports of this disease until the Spring of last year. Investigations have shown however that in all probability a few cases appeared in Manchester in 1933.

3. *The Nature of the Disease.*—The disease is caused by a rust fungus Puccinia Psidii, Winter. This diagnosis has been recently given by Miss E. M. Wakefield of Kew Gardens, who is the recognized authority on the rust fungi. This fungus is not new to science as it has been known for a very long time as a common parasite of the Rose Apple and certain other wild plants of the same natural order. It has however never been previously recognized as a parasite of the Pimento and it is quite apparent that the strain which is now attacking the Pimento is a mutation or "sport" of very recent origin which has shown itself to be capable of attacking the Pimento tree. I might mention at this stage that the rust fungi as a group very frequently have specialized strains or sub-varieties which attack only certain species of plants. For instance, the Black Rust fungus which attacks wheat and other cereals has a very large number of biological strains, some of which will attack one variety of grass or cereal and not others. These strains are probably all of the nature of mutations or "sports" and it seems almost certain that the Pimento disease fungus is a sport or mutation of that which attacks the Rose Apple. To explain further the nature of a mutation or "sport" I would cite the example of the Red Banana which sometimes throws a green sucker as a "sport." My reason for assuming that the Pimento fungus is a recent mutation is because I have observed the Rose Apple fungus

for a number of years and have seen it producing considerable damage to the Rose Apple in very close proximity to Pimento trees which were quite healthy. It was for this reason at first I was inclined to think that the Pimento disease fungus was a distinct fungus from that which attacks the Rose Apple. It is only since the diagnosis has been confirmed by an expert on the Rust fungi, such as Miss Wakefield, that I have been prepared to acknowledge the fungus as one and the same thing. I might mention that it is not always easy to identify rust fungi because it frequently requires the services of an Expert who does practically nothing but the identification of such fungi, to be able to recognise certain microscopic differences or similarities.

4. *Nature of the Damage done by the Disease.*—The disease only attacks young tissues such as the freshly produced leaves and soft twigs and the flower stalks and young berries. It does not attack the old leaves neither is it capable of attacking the woody parts of the tree or the roots. The damage that it really does then is:—

(a) To cause early defoliation.
(b) The death of the young twigs,
(c) Falling of flowers and young berries so depleting the crop.

So far I have had no clear-cut records of trees having been completely killed by the disease. One season would be insufficient for this disease to cause the death of a normal tree, because the damage which it does is through defoliation and therefore the reduction of food supplies which are manufactured in the leaf. I am therefore of the opinion that to cause the complete death of a tree it would take a number of seasons. It must be admitted of course that there are many trees in Southern Manchester at the present moment which are completely defoliated and therefore have the appearance of having been killed. Some of these trees may actually be dead but such death should not

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be attributed wholly to the Pimento Rust disease. Whether, if the disease continues especially in Southern Manchester with such virulence as it has done in the past year, trees will be lost, remains to be seen. I feel however, fairly optimistic that conditions will improve and there will not be the wholesale loss of trees. At the same time, in many parts of this district, the trees are growing so closely together that a natural thinning out would do no ultimate harm.

5. I have already explained in a previous report that the unfortunate appearance of the Pimento disease in Southern Manchester is due to the fact that they have suffered from two years' attack of the disease. A Pimento tree normally carries its leaves for two seasons, so that when the 1934 crop of leaves was attacked by the disease and were caused to fall, the trees were able to carry on until 1935 with the 1933 crop of leaves. The latter however fell in normal sequence in the Spring of 1935, and as the young leaves for 1935 were also attacked by the disease and caused to fall, the trees are now almost bare. I am hopeful however, that with the Autumn rains they will produce a new flush of growth which I have every reason to believe may be much healthier and freer from rust infection than any growth made in the last two years. My reason for saying this is that with the very heavy defoliation which has taken place this Spring, the bulk of the infected leaves, etc., have dropped to the ground and will have rotted together with a lot of the rust fungus spores (seeds) by the time any flush of growth is made in the Autumn.

6. My remarks concerning damage to the trees so far have been restricted to the areas of Southern Manchester and parts of St. Elizabeth. While the disease has been definitely present in St. Ann for at least a year and possibly some of the other parishes, as a general rule the damage in these places has been much less severe than in Southern Manchester and I feel quite optimistic concerning the ultimate status of the disease in these other places.

7. *Conditions which influence infection.*—The rust fungi generally are very vigorous parasites but they require certain sets of conditions to cause wholesale damage. Generally speaking, damp weather favours infection and if this is followed by bright spells, sporulation (seed formation) of the fungus is very much favoured. When I say that wet or damp weather favours infection by such fungi, I do not mean that if a district has a very heavy rainfall it is necessarily going to be a district in which the disease will cause heavy damage. It is more a question of high atmospheric humidity at certain times of the year and certain times of the day which influence infection rather than the incidence of heavy flood rains. Consequently I look upon Southern Manchester as a district where conditions are more unfavourable for infection than say, St. Ann and certain other sections of the Island.

8. It has been stated by certain planters that male trees are more susceptible to the disease than the female trees. General observations however have not confirmed this, neither is there anything to indicate that in any particular district the trees growing in more favourable conditions of soil, etc., are less severely attacked than those growing almost on sheer stone. Nevertheless, it stands to reason that trees growing in good conditions are more likely to be able to recover rapidly from a severe infection by the disease than trees growing under is a poor conditions.

explain*ntrol of the Disease.*—Planters generally appear to be very cite the ted that no direct method of control has been put forward. sucker as a place I desire to emphasize that when the disease can be is a recent m.

recognised by the lesions on the flowers, leaves, or young twigs, it has already reached a very highly infectious stage for several days. In other words, spores (seeds) have already been produced in their millions and have been distributed by wind and other agencies. Consequently the destruction of the infection material at that stage while it might reduce infection slightly would really be too late. Suggestions have been made that spraying should be taken up as a method of control of the disease. It is very necessary that all Planters should thoroughly understand that spraying in connection with plant disease control is not done for the curing of infection on leaves and other portions of the plant that are already infected, but wholly and solely as a protective measure. In other words, it has to be done before infection comes along so that any spores which may alight on the leaves may be killed by the spray material which has already been placed there. In view of the fact that when the disease was first brought to attention it had already spread over an area some 50 or 60 miles long by 20 or 30 miles wide, it will be readily understood that spraying as a protection under such circumstances was quite beyond the bounds of economic possibilities. A further factor which has to be borne in mind in considering any such method of control as spraying is that the young growth are those which become attacked by the fungus. To give them an adequate protection when they are growing very vigorously it would be necessary to spray probably every 2 or 3 days as growth at that period is very rapid. Another point which has also to be taken into consideration is the fact that the Pimento tree is to be found scattered throughout the bush practically all over the Island and any protective spraying or other direct control methods which might be carried out on the estate would be immediately offset by the re-infection which would originate from spores released from untreated trees growing wild in the bush. It has to be borne in mind that in the whole of the Colony of Jamaica there are probably less than 5 acres of Pimento which have been planted by human agencies. Practically all the trees are wild trees which grow up in the pastures and the bush. None of them are regularly planted under plantation conditions where spraying or other direct methods of control could be applied at an economic figure. For these reasons I find it impossible to suggest any method of control which could be applied at a cost at all in proportion to the capital value of the trees, and unless control measures, even if they were economically possible, were carried out from one end of the Island to the other on all trees whether growing in pastures or in the bush, the expenditure on such measures would be an entire waste of money.

10. Needless to say, one has a very sympathetic feeling towards the unfortunate planters and settlers whose Pimento trees have been attacked by this disease, but I think it will be understood from the foregoing arguments that it would be useless at the present juncture to recommend that they should increase the difficulties by spending money on so-called measures of control which would be of doubtful benefit and almost certainly a failure. I am convinced, however, that while it must be acknowledged that damage in the last two seasons, especially in certain districts, has been very severe, there is every hope that the disease will ultimately reach a much lower status of importance. Rust diseases generally speaking are seasonal and only do damage every few years. This can be observed in the "parent fungus" on the Rose Apple, and consequently it is anticipated that in most districts the average weather will not be favourable to severe damage by this fungus every year.

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Extracts from Current Literature.

(Extract from "The Weekly News" Jany. 30, 1935.)

NATIONAL MORTGAGE CORPORATION SCHEME.

When Parliament meets toward the end of February the principal business will be the passing of legislation for the establishment of a National Mortgage Corporation and the provision of the machinery to enable this new body to take in hand the rehabilitation of farmers' finances. The serious fall in farm income has placed many farmers in the position that after providing for maintenance and living expenses they are unable to meet their present mortgage charges.

In the memorandum issued by the Minister of Finanace, the Rt. Hon. J. G. Coates, indicating the form of the proposed legislation, it is stated that unless steps are taken to meet the situation thousands of farmers inevitably will be dispossessed of the land on which they have put years of hard work. The possibility of loss to mortgagees in any scheme of reorganisation has not been lost sight of and it is stated that the endeavour will be to evolve some general plan that will be as equitable as possible to all parties concerned.

TASKS FOR THE COURT.

Machinery is to be provided by which the parties can be brought together and a voluntary arrangement made, but it is realised that there will be cases where this ideal will not be realised and it is therefore proposed to set up a Special Court of Review to adjudicate in these matters. Apprehension has been expressed in some quarters concerning some of the powers to be given to this court, against whose decisions there would appear to be no provision for appeal.

While the court will not be authorised to order any immediate writing-off of capital, it will be empowered to make a "stay order" to prevent action being taken against the mortgagor, provided that he carries out the terms of settlement agreed upon. In fairness to the mortgagees the court will have power to refuse a "stay order" in cases where a review of the debtor's position reveals the fact that rehabilitation is impossible, either because the debtor is incompetent, or from the extent of his liabilities or because the property does not lend itself to profitable farming.

FIXING THE EQUITY.

Under such a "stay order" the mortgagor would be called on to farm the property for the benefit of the creditors and himself for a period of five years under supervision and on a budgetary system, the income from the farm being apportioned on a predetermined basis. At the end of five years a valuation is to be made for the purpose of ascertaining the meantime fixation of the capital charge against the security. This valuation will generally be based on the productive capacity of the farm during the period.

The opportioning of this valuation between the creditors and the farmer is a point which is causing some concern among those who have large sums invested in farm lands. It is stated in the Minister's explanatory memorandum that unless the court determines otherwise, 80 per cent. of the valuation will become a fixed charge in favour of the creditors, due regard being given to legal priority of claims. The remaining 20 per cent. of the valuation will represent the equity to be allotted to the farmer.

Members of the legal profession and others who are interested in the investment of money in farm lands from trusts or other sources expressed the fear on Monday that a farmer who now had no equity in his property would be allowed to receive 20 per cent. of the value of the assets. While in the case of a small farmer this might be justified if on the skill and industry of the farmer depended the salvage of the property, where the assets covered by the mortgagees were of considerable value the insolvent farmer would be awarded a disproportionate share of the declared valuation. The point was made, however, that while the productive value of the farm might be dependent on the competence or energy of the mortgagor, 20 per cent. might in some cases represent such a small sum that it would not be worth the effort over a five-year period.

The question of the provision of capital for improving the farm during the rehabilitation period was referred to by one authority. He said that probably 50 per cent. of the cases which came before the Adjustment Commissions were those in which the farm had been going back in cultivation owing to the farmer not having the means to improve it. It was quite a common thing to hear that a farm had not been top-dressed for two or three years. Who therefore was going to provide the funds under this scheme for the necessary expenditure on the farm? It might be said that this was going to be a first charge on the results of working the farm, but where was the money coming from? It was also contended that the period of five years was too long. There might be an increase in prices during that time, and in such an event the Court of Review should be given power to reconsider the position from time to time.

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SEA ISLAND COTTON IN JAMAICA.

An attempt was made some years ago to establish cotton growing as a Jamaican industry. Owing to unfavourable weather conditions during the years of the trial, exorbitant ocean freight rates and a decline in prices, the attempt was unsuccessful, but sufficient experience was gained to show that cotton is a crop which given proper care and normal prices can be grown profitably in Jamaica.

Recently there has been more activity in the Sea Island cotton industry than for some years past. Owing to its unique characteristics of lint length and softness, there has always been a small demand for this cotton for special yarns. As the clippings reproduced below show, *this demand is expanding with the increasing use of this cotton* for clothing purposes. Quotations for Sea Island Cotton in England have lately been near the normal figures of twenty years ago. Prices during the last three months have varied between 13½d. and 15½d. per lb. Under the circumstances the correspondence and reprints below are of interest.

The Editor,

Dear Sir,

I enclose a cutting from an English paper sent me by a friend which may prove of interest to your Society.

I am, etc.,

(Sgd.) E. HAUGHTON SANGUINETTI,

23 Duke St.,
Kingston.

18th June, 1934.

(Extract from the Evening Standard.)

SEA ISLAND COTTON COMES INTO ITS OWN.

Sir Philip Cunliffe-Lister, Secretary of State for the Colonies, visited Austin Reed's Regent-street showrooms to-day to inspect a display of men's wear made from the British Sea Island Cotton.

Mr. Austin Reed, during a recent pleasure trip to the West Indies, was greatly impressed by the silky texture and the strength of this cotton, which is claimed to be the finest cotton in existence.

For years Sea Island Cotton has been a luxury in Britain. Small orders have led to high prices.

Mr. Reed, however, decided upon a big outlay in orders, and as a result has put on the market shirts, pyjamas, underwear and handkerchiefs at prices which compare with ordinary cotton goods.

Mr. Austin Reed confessed to-day, at a luncheon which followed the inspection of the showrooms, that 12 months ago he had no idea where Sea Island Cotton was produced.

He had now given orders for 60 miles of yarn for manufacture into shirts alone.

He hoped that a registration mark for British Sea Island Cotton would soon be produced.

Sir Philip Cunliffe-Lister sketched the history of West Indian cotton growing. The acreage under production, he said, was now three times as great as it was three years ago, and the market could absorb as much as the West Indies could produce.

The Editor,

I enclose herewith a cutting from the "Gleaner" on Sea Island Cotton. Some years ago the Society took up the growing of this crop. We had demonstration plots in Vere and Southern St. Elizabeth. The cotton grew and gave splendid results in long staple cotton. There was at that time no market for the article and so cultivation was not encouraged.

It would perhaps be an opportune time to take up the industry again.

Yours truly,
H. W. LYNCH.

Myersville. 29th May, 1935.

SEA ISLAND COTTON.

The "Evening Chronicle" (Manchester, England) of May 9 says: "Some concern has been expressed in Lancashire cotton circles recently that the West Indian Sea Island cotton supplies were dwindling with the prospect of this high grade of staple going out altogether.

"Compared with many other cotton crops the Sea Island variety is insignificant in size, but its importance to Lancashire lies in its quality.

"It is the type of cotton from which the finest counts of yarn are spun. In some mills 400's have been spun from it, and there are mills to-day spinning counts of 200's to 300's.

"The crop only amounts to a few thousand bales, but it is important that supplies of this grade of cotton should be available.

"We now have the assurance of Sir Philip Cunliffe-Lister in Parliament that steps are to be taken by the formation of a West Indian Sea Island Cotton Association to promote the general interests of the industry and that the Colonial Office is assisting in the work."

* * * * *

3. The land should be forked, or ploughed roughly, in the beginning of July, for planting in August, and left to weather for two weeks. Then it should be gone over again and made fine as possible. If a plough is used, shallow drills should then be made, four feet apart, and three to four seeds planted together, every two feet. If the hoe is used, holes should be made exactly as if planting corn, two feet apart, three and a half to four feet between rows, and three or four seeds dropped in, covered not deeper than an inch, and the soil pressed down with the blade of the hoe. The lines should be kept as straight as possible each way, like so:

2 feet between plants.

————————————*——————*——————*

3½ to 4 feet between rows.

————————————*——————*——————*

3½ to 4 feet between rows.

————————————*——————*——————*

The seeds can be roughly tested before planting by flinging them in a pan of water; letting them stand an hour, and taking out all those that float as bad.

— ordinary seasons rain falls in the lowlands about the 12th of ..., and showers usually continue through August. The land

should be all ready by the end of the first week of August, and when rain falls after the 15th, planting should begin and may continue up to the 15th of September, but if rain falls, the nearer the 15th of August, planting is done the better.

4. The young plants will appear—just like young peas— in three or four days, if the soil is moist, or rain falls, and if all of them grow strong, all but one should be cut off close to the earth with scissors. But if any plants fail or grow weak elsewhere, two may be taken out gently, not by pulling, but by raising up the earth, preferably with a trowel, until they come out easily. Then the earth should be pressed down firmly around the two left. Those taken out should immediately have their roots dipped in a mixture of earth and water, like mud, to preserve the roots from drying, and be planted, where needed, *at once*.

5. Where planted so wide as four feet between the rows, and all the land have been forked as is recommended, and if rain falls well, a crop of "red peas" can be taken off between the rows; even black-eye peas can be grown between, but the land must be kept clean weeded round the cotton plants.

6. We insist that it is best to fork or plough the land through to aerate it, and make it easy for the young roots to spread. The more the roots are able to spread through the soil, the more foodstuff they will be able to absorb, the quicker they will grow, and the better they will bear.

But when men are late in making up their minds to start, and have to get ready in a hurry, the wire grass can be hoed off, and when dried drawn into rows, leaving a two-feet space between rows. These rows can be forked right through, or if the man is in a big hurry (which, of course, he should not be) holes may be forked two feet apart, leaving them until a shower of rain falls; then break the soil fine and plant three seeds. These will grow well, and he can break up the rest of the soil between the plants at his leisure. If the dry weather comes along, the dried grass between the rows can be drawn close to the plants as a mulch and for manure. Two weedings are generally enough.

7. In November and December the plants will flower, and in January picking will begin. When the bolls open and the cotton looks fluffy and loose, it is ready for picking. Women and girls do the picking of cotton best as their fingers are more supple and slender. One practical lesson is better than a written description of picking. The cotton must be taken out with the first three fingers, clean and in one bit, and not torn out in several attempts. The pickers wear aprons to drop the cotton in, and when the aprons are full, empty the cotton into large baskets placed in the row, which again, when full, are taken and the contents weighed. The pickers are paid by the weight picked.

8. Cotton should only be picked when dry, and so picking does not begin until the dew is off. If it happens to get wet, after picking, it is spread out to dry in the sun for a couple of hours, and is all right again. It is taken by carts to the ginnery for the cotton to be separated from the seed. The seed here generally weighs from 70 to 75 per cent. of the total weight, leaving a little over a quarter of the weight in cotton. It requires suitable machinery for the oil to be taken from the seed, and as we have none here—more is the pity—it will require to be exported. The oil is used for cooking as "sweet oil," and for making soap. The meal after the oil is taken away, is used for feeding cows, and for manure. If we had proper machinery here—and there would be if there was plenty of cotton seed to keep mills going—we could

supply our own sweet oil, make our own soap, feed our dairy cows, and find cheap manure for the land.

So that you see how much a cotton industry would mean to Jamaica.

1. It would utilize lands at present producing almost nothing, so that they could give a gross return of £10 to £12 an acre, and a net profit of £5 to £6 per acre.
2. It would employ women and girls in the light work of picking; just the class who find it hard to get work suitable for them.
3. It would enable us to own our mills, and soap works here, and employ more labour; would save us importing oil and soap, cotton seed meal for cattle feed, and fertilizer for enriching our field.

(*Extract from the Journal of the Jamaica Agricultural Society, March, 1908.*)

COTTON INDUSTRY IN JAMAICA.

(*This Memorandum has been accepted as the Views of the Board of Agriculture.*)

In consequence of the failure of the first effort to establish the cotton industry in Jamaica, the next attempt to do so must be made with great care, as a second failure will put back the development of the industry for many years.

To quote from Sir Daniel Morris' Preface to A.B C of Cotton Planting, "It is only those who are in a position to give constant personal attention to cotton growing, and to deal promptly with the cotton worm, who are recommended to take up the industry. It is not suited to those who have not had previous experience in planting; and even those who have had such experience are advised to make themselves thoroughly acquainted with the requirements of the industry before they embark upon it."

Having had experience of the infancy of the industry in the West Indies in 1902, I venture to suggest the following scheme for establishing the industry in this island:—

1. That the Agricultural Instructors should carefully study the A B C of Cotton Planting, published by the Imperial Department of Agriculture.

2. That the Agricultural Instructors should frequently visit the fields of cotton at New Yarmouth and Moorlands, and the fields cultivated by Mr. Desporte to obtain all information possible, and to make themselves, as Daniel Morris puts it, "thoroughly acquainted with the requirements of the industry."

3. That the Agricultural Instructors should endeavour to interest in its cultivation, at least, one intelligent planter in each locality suitable for the cultivation of cotton, and to encourage each of them to plant about three or four acres in August, 1908.

4. That the Instructors should recommend planting about the middle of August, thereby ensuring a dry season for reaping, which is important. If a good stand be established before the October rains, the plants do not get strangled by weeds, and the cost of weeding is much reduced; added to this, the reaping will be done in the dry months of January and February. Districts may vary somewhat, and allowance must be made for this, but the times mentioned are most general. Corn-planting time is the proper time.

Spring planting should commence with the first rains in March, and planting should not be continued after April, so that as much of the crop as possible might be picked before the September rains.

5. That when experimental plots of cotton are so established in suitable districts, the Agricultural Instructors should give demonstrations in the fields to the neighbouring settlers.

6. That whenever the settler does plant cotton, the Instructors should report the fact to the Agricultural Society, who should immediately take steps to place Paris-green within easy reach of such settler, persuading a local man to retail it at a reasonable price, or, failing that, the Society should purchase a quantity, and make arrangements for retailing it, always bearing in mind that it consists principally of arsenic, and must be dealt with carefully.

If the foregoing recommendations be properly carried out, the industry will then take care of itself, and as the cultivation increases ginneries will be erected, the proprietors of which will gladly either gin or purchase seed cotton. It is recommended that the purchasers of small lots of cotton should keep the seeds of the best cotton from the larger lots ginned by them, giving these seeds at the rate of 6 lbs. per acre for each acre of land cultivated, to the parties selling them the cotton, thereby securing a good quality of cotton for the next season, which cotton they will again purchase.

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JAMAICA AGRICULTURAL SOCIETY.

Sea Island Cotton for Men's Wear.

(*Gleaner*, 19.6.35.)

Helping the Empire.

While articles made from Sea Island cotton have long been sold here, few have known that genuine Sea Island cotton is an Empire product grown in the West Indies. The exceptionally high quality of the cotton is recognised, but its use has been limited, and in the islands, its high price is attributed to the small demand. An organised effort to assist the British West Indian Sea Island cotton industry has recently been initiated, and yesterday Sir Philip Cunliffe-Lister, Secretary of State for the Colonies, visited the Regent Street premises of Austin Reed, Limited, to inspect a special display of goods manufactured from the cotton. The goods included shirts, pyjamas, and underwear.

Mr. Austin Reed, speaking afterwards at a luncheon at the Cafe Royal, said that the name Sea Island cotton had been surrounded by a mystery which appeared to be insoluble. During a visit to the W. I. 12 months ago he found that a number of planters were interested in the production of a grade of cotton finer than anything grown in Egypt, but that the market for it was exceedingly limited. As commercial people they thought they knew a good thing when they saw it, and he was certain that in pushing the sale of Sea Island cotton goods they were on a good thing.

Sir Philip Cunliffe-Lister said that seven islands of the West Indies were deeply indebted for what was being done to give them a market. Two years ago when he reviewed the different things the Colonies could produce he found that the production of Sea Island cotton was steadily declining because of the competition of artificial silk. The West Indies Advisory Committee sat down to consider what was the best thing to be done, but they had not a lot of money to spend. He advised them to get some enterprising firms with vision in this country to use the article, and they were fortunate in finding spinning and weaving firms who would take it up. The growers in the West Indian Islands this year were planting an acreage which would give two-and-a-half to three times the production of two years ago, and he thought they would be able to give the market what it was ready to absorb.

The Secretary for the Colonies added that the Prince of Wales was a steady wearer of Sea Island cotton on its merits.

(*Leaflet issued by the Jamaica Agricultural Society*, 1907.)

How to grow Sea Island Cotton in Jamaica.

1. While cotton will grow everywhere in Jamaica, from the seaside to over 3,000 feet in the hills, and wild cotton is common, the particular variety of cotton which we want to grow, because the markets abroad want it, and will pay the highest price for it, is Sea Island Cotton. The common cotton growing wild is either Kidney Cotton or Upland Cotton, and neither are of any use for our purpose, and any bushes of these kinds growing near where we are going to cultivate Sea Island Cotton should be cut down in case they cross and spoil our seed for planting.

2. Sea Island Cotton is best grown in the lowlands, for although it will grow well in the hills, and inland, there is more expense to get it marketed from there, and other things will grow in the hills better. The idea is to grow it where people cannot grow bananas, coffee, and cocoa, and have little choice of what they can grow to ship abroad, and bring money into the Island. Guinea grass and sweet potatoes we only sell to each other, but we want something extra to sell abroad. Light soil and a dry climate suit Sea Island Cotton best, and so we have plenty of districts to plant it in. It has already been proved that St. Andrew suits it as well as anywhere in the world. Sir Daniel Morris, the head of the Imperial Department of Agriculture for the West Indies, who has seen cotton growing in the Sea Islands themselves, saw Mr. Desporte's cotton field here, and said it was as fine as any he had ever seen. It has been grown successfully at Shortwood College, Hope, Yallahs, Spanish Town, Old Harbour, in Vere, St. Elizabeth, St. James, Trelawny, and elsewhere, on dry soils, and in dry climates. The prices for the cotton already shipped have been most satisfactory.

The value of seed so given would be less than 3d. in each 30 or 40 lbs. of lint obtained from the seed cotton purchased, and on which 40 lbs. they might thereby gain an extra 1d. per lb.

Purchasers of seed cotton could give a minimum price of 2½d. per lb. for seed cotton.

The ginner must net 1s. per lb. to cover that price without any profit, and small lots of cotton from different localities vary so much in quality that a mixed bale might sell at a very low figure on a basis of the worst sample.

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Competition would cause the full value to be given on a parity with Liverpool quotations at the time of purchase, and 3d. per lb. would frequently be obtainable. Ginners of cotton could make a good profit by ginning cotton for the seed, and ½d. per lb. for lint, or for 1½d. per lb. without taking the seed. 100 lbs of seed cotton gives, approximately, 28 lbs. lint and 72 lbs. seed; with seed netting £4 per ton, 72 lbs. is worth 2s. 6¾d. less, 5 per cent. for loss of weight, 2-5, about equal to 2s. 4d. for the 28 lbs. of lint ginned, or 1d. per lb. of lint for ginning cotton, leaving only ½d. per lb. to be paid for ginning, if the seeds be taken.

I advise that a labouring man should not be urged to plant cotton as an experiment, which it certainly would be, but should any man plant it of his own accord, he should be assisted in every way.

My recommendations are not theoretical but are based on my practical knowledge of the manner in which the industry shaped itself in the island of Mon serrat.

The industry was started in that island, in 1902, on three sugar estates, of which I was attorney. Thirty acres were planted on each estate, after having experimented with one acre on each the previous year; the settlers predicted failure, and a few small proprietors and settlers planted one or two acres and did fail. Later on, however, when they realised that money had been made, they again planted, advised by Sir Daniel Morris to take the cultivation of the estates as an object lesson, the result being that settlers now grow cotton successfully and Montserrat is well to the front in the industry, there being five ginneries, and several purchasers of cotton in that small island.

Of course, the Imperial Department of Agriculture assisted, as usual, and my recommendation *re* Paris-green, paragraph 6, is based on the action of the Department.—C. WATSON.

(*Extract from the Journal of the Jamaica Agricultural Society, August, 1908.*)

In the average district of Jamaica, suitable for cotton growing, and and with the average weather between 1897 and 1907, cotton could be safely planted in March and in August when corn is usually planted, and it would not be wise to take the experiences of last August and this March, when there was a very little, and in some places, none of the usual showers expected in the average year. It would not be wise therefore, from the experiences of one year to plant earlier or later with the idea of getting better seasons. If we plant later than August, or at the latest 15th September, the cotton would not come in early enough to be picked by the middle of April. But in this connection, we must say, that irregular flowering, irregular bolling and irregular quality, are caused in a great measure by planting too close. It is necessary for sunshine to get at all the plants as evenly as possible; if this is secured, the crop will be very even, and by planting in August, the plants will flower in December, the cotton can begin to be picked in the middle of January and be picked off by the end of March.

Sea Island plants here grow larger than is usual in most other places where it is grown, and we have to allow for this by planting wide between the rows. This too, will allow of better tillage until the plants are in blossom. If the land is early broken up to begin with and made fine with cultivator and harrow, and the preparatory cultivation is all

done by the end of July, the fields should be in good tilth, waiting for the August rains. Immediately rain falls, planting should be kept going to keep the soil loose and never allow it to cake or get hard, and to prevent insects getting a hold. Even close round the little plants, whenever a crust forms, it should be broken with the hoe. If the soil is thus kept loose, very little rain will suffice to keep the plants going, but the moment the land is allowed to bake, especially close to the plants, they will get a setback. Land when baked may appear dry and yet be quite moist below, and when irrigation is available, water is put in, when a good stirring with the harrow-toothed cultivator would do more good. Whenever irrigation is used drains are a necessity. When cultivating by hand plants can be closer, but for the height the plants have grown here, we think 6 ft. by 3 feet not an extravagant width to allow for horse tillage, and 4 ft. by 3 ft. suitable for hand cultivation.

Last year every rule of the weather seems to have been reversed, but we trust that from now the weather will resume its normal behaviour and allow of planting in August.

(Extract from The Journal of the Jamaica Agricultural Society, May, 1909.)

Although opinions are very divided as to the probability of cotton-growing becoming a success in Jamaica, and strong opinions have been expressed against money being spent in trying to develop such an industry, yet we have not given up hope that a substantial industry can yet be made in Jamaica. Last year the results were stated to be so unfavourable that they were quoted as an argument against cotton growing. We pointed out that the results, because of drought, were a half crop, while in the same districts there was less than a half crop of cane, or no cane whatever—fields burnt completely out; the small settlers had not even cassava, or congo peas, yet they had half crops of cotton which we marketed for some of them. This was by no means unfavourable. This year we are glad to see that the crops are about three-fourths of what is stated to be a full crop, and in one case at least, there is more than an average full crop. Mr. Ronaldson at Springfield, Vere, has taken in an average of 620 lbs. of seed cotton per acre from a cultivation of 10 acres, Mr. Eric Anderson at the Cottage, Hayes, Vere has already taken 13,665 lbs. of seed cotton from cotton planted through sisal hemp, and although the acreage under cotton in this way cannot be accurate, it is not equal to more than 15 acres, but if we put it at 20 acres the return is still high. Mr. Watson at New Yarmouth, has also had very good crops, and the cotton seems extra good. A few small settlers in Vere who have grown cotton have had crops also, yet no one could call the seasons favourable; the drought still continues.

Cotton cultivation has a great many advantages; its disadvantages are its liability to insect pests. It stands drought, it supplies light and profitable labour from women and children: as they are paid at the rate of 1d for picking 3 lbs., they can make 1/- a day, while the ordinary wage for women and children in the field is 6d. a day, they are paid by results, and the best pickers make the most money.

The Society is prepared to carry through small experiments on the dry coast line of Trelawny and St. Ann, and in the plains of St. Elizabeth, beginning August, and all those interested in the industry

should approach the Instructor for the district or write us with a view to getting selected plots started on small cultivators' own lands.

(*Extract from Journal of the Jamaica Agricultural Society, July,* 1910.)

At the meeting of the Board of Management held in June, Mr. Conrad Watson spoke to the following effect:—He would take this opportunity, he said, to contradict the statement made by the Director of Agriculture that no one had grown cotton in the Island for three consecutive years and made a profit out of it. He had done so. He had grown cotton in 1907, which was a year of drought, in 1908, which was only a little more favourable, and in 1909, which was a flood year, and he had made a profit in each year. If a succession of good seasonable years followed the uncertain weather of late years, far better results would accrue, and he thought penkeepers ought to try cotton growing as a rotation to grass in their pastures. The man who grew fifty acres of cotton in this way ought to make a success of it if he attended to the cultivation. He was quite sure that money could be made out of it by taking up fifty acres of pasture land in rotation, and after the crop was taken off returning it to grass. The grass would then grow better and be clear of ticks. He had spent £3 per acre up to date on his ninety acres of Sea Island Cotton, and he had now got cotton to the value of £666 on the water, at the rate of 1/6d. per pound. This was a low value as the quotation was now 1/10d. His returns per acre were not as high as they could have been in favourable years, but they compared favourably with what had been got in Barbados. The cost of producing cotton here was lower comparatively than in the other West Indian Islands, as here they did not have to manure the lands and they could use more implemental tillage. From his experience at New Yarmouth Estate on which he worked, it was not an ideal cotton growing soil, but there were other lands around his district, such as Mr. Ronaldson's and Mr. Anderson's where cotton had been grown successfully, which were much more suitable.

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BRANCH NOTES.

All Reports received are acknowledged in this section of the Journal. This month we have only been able to put in print Notes from Branches who have not yet had a publication this year.

Branch Secretaries should **write on one side of the paper only.**

[Ed.

ST. ELIZABETH: Aberdeen.—Annual meeting 25th May. Present: Mr. L. A. Taylor, in the chair, and 18 members. The report of Social Committee advising the postponement of the proposed Social to a more convenient time, was presented and adopted. The President stressed the necessity for controlling the Banana Borer which is a menace to the industry. The retiring President expressed dissatisfaction at the apparent coldness on the part of many members. He thanked officers and members for their co-operation during the year. He was thanked for his keen interest in the Branch. The Secretary's report was presented. The Treasurer's report showed a balance of over £2 to the credit of Branch. Election of Officezs resulted as follows: *President*, Mr. L. A. Taylor; *1st Vice-President*, D. B. *Heron*; *2nd Vice-President*, Thos. Peart; 3rd Vice-President, W. A. Lewis; Secretary and Treasurer, Mr. N. A. Brown; Assistant Secretary, E. W. Roberts. Authorised Persons Peart and Calame, reported all correct. The latter tendered his resignation. A Committee was appointed to draft a resolution to be forwarded to the Parent Society *re* improvement work on the Windsor—Aberdeen road. 30 members qualified. The National Anthem was sung and the meeting adjourned.

Aberdeen P.O. N. A. BROWN,
Secretary.

Kilmarnock.—Meeting 14th May. There were 9 members and 2 visitors present. The new Teacher was given a warm welcome. He expressed his thanks and promised to do his very best for the Branch. Miss O. M. Smith was elected as Assistant Secretary. Letter was read advising the Branch to look to the Westmoreland Board to provide water as the greater portion of the inhabitants resided in Westmoreland. The treasurer submitted his report. The Secretary was asked to invite the representative of the Humphrey's Medicine Co., and Mr. Arthur Comrie, M.P.B. to pay the Branch meeting a visit, whenever possible. Instructor gave an inspiring address on red peas. He advised cultivators to plant sufficient peas to supply the local demand, and then the money spent on this commodity would remain in the Island. The meeting was brought to a close by the singing of the National Anthem.

New Market P.O. J. E. MONTEITH,
Secretary.

Springfield.—Meeting 3rd May. Present: Rev. W. J. Driver, President, the Instructor and 12 other members. The Demonstration plot and Spray were discussed. Delegates were appointed to attend the Half-Yearly meeting of the St. Elizabeth Branches Associated. The Instructor read and explained two articles from the Journal for March, and there was a healthy discussion on these articles. Minor matters were dealt with and the meeting ended with the National Anthem.

Springfield P.O. J. A. WOODSTOCK,
Secretary.

TRELAWNY: Alps.—Meeting held May 15. Present: Messrs. M. N. Thompson, Instructor, E. Christie, President, 11 other members and 5 visitors. A committee was appointed to deal with a resolution from the Ulster Spring Branch, asking for support of its move against one-root treatment of diseased banana trees. The Instructor's lecture on the adaptability of coffee to this district and on how trees growing now should be cared was encouraging as well as interesting. He was heartily thanked. New matters dealt with included discussions on affiliation with the Associated Branches (if that institution is functioning) and on the purchase of a coffee-pulper and of a ram. Members decided to purchase a pure bred ram for the Branch. A grant of 4/- was made to the Juvenile Branch. The President explained how Branch funds were used and stressed "canvassing" for the Branch. The Assistant Secretary's motion for inviting an officer of the Constabulary to speak on Praedial Larceny and the rumoured "5/- value" limit for arrest by Authorised Persons was accepted. There were no reports from Authorised Persons. The meeting terminated with the "The King".

Ulster Spring P.O. ED. N. BURKE,
Secretary.

Duncans.—Annual meeting 21st May, 1935. Present were: Mr. L. N. Grant, 1st Vice-President, presiding, 5 other members and three visitors. Apologies for absence were submitted. The Secretary gave his report. During the year there were: (1) Arrangements for a demonstration plot. (2) A very interesting debate, and (3) Lectures. (4) 13 new members enrolled. Election of Officers:—Mr. J. Stockhausen, President and Treasurer; Mr. L. N. Grant, 1st Vice-President; Mr. J. Wilson, 2nd Vice President; Mr. J. N. Jones, Secretary, (all re-elected) Miss Goodhall, Assistant Secretary, Messrs. B. A. Jones and H. Charley, Auditors. A managing committee was also appointed. The Treasurer gave his report showing a credit balance of 24s. 2d: Rev. J. W. Maxwell was appointed to represent the Branch at next Half-Yearly meeting of the Parent Society. The Meeting was brought to a close by the singing of the National Anthem.

Duncans P.O. L. V. SLOLEY,
Secretary.

Warsop.—Meeting 21st May. Present: Mr. Chas. Wright, President; Instructor, Mr. M. Thompson, 14 other members and a large number of visitors. It was agreed to defer the appointing of a delegate to the Half-Yearly meeting till the next meeting. The need for a Police Station at Warsop was discussed and final diecision re resolution deferred. One Authorised Person reported on work done. The Instructor spoke on the cultivation of banana. He stressed the importance of intensive cultivation of the product advising as to the way the ground should be prepared and the method of planting out the suckers and when planting should be done. After a very valuable discussion on the topic the meeting terminated with the singing of the National Anthem.

Warsop P.O. N. K. WALTERS,
Secretary.

Wakefield.—Meeting May 7th. Present: Mr. C. R. Browne, 1st Vice-President, presiding, Instructor M. N. Thompson and several other members and visitors. During the day the Instructor visited holdings and gave instructions. The Authorised Persons presented their badges and handcuffs for inspection. Two new members were enrolled. It was agreed to thank the Trelawny Parochial Board for the erection of a new pump to the Wakefield pond, a landmark to the credit of of the Board. It was agreed to reply to a circular from the Ulster Spring Branch re the universal One-Root Treatment for Panama Disease. The Instructor lectured on methods of prevention of the Panama Disease and the Mosaic Disease of Canes. He also spoke on cane culture, and distributed to members afterwards some P.O.J. 2878 cane seeds he had taken from the nursery. The Chairman gave an address and thanked the Instructor. Minor matters were dealt with and the meeting adjourned.

Wakefield P.O. E. S. BLISS,
Secretary.

PORTLAND: Cooper's Hill.—Meeting 28.5.35. Present: Mr. H. W. Hay, presiding, 9 members and Instructor G. R. Graham. Messrs. J. T. Davis, A. Kinlock, A. McPherson and Chas. Bradshaw, were appointed delegates to the Half-Yearly conference of Portland Branches Associated. Mr. Hay gave an interesting and practical address on the Banana Industry with special reference to the menace of Panama Disease in Portland and urged members to agitate for the establishment of a depot or the distribution of the oil for the destruction of plants affected by Panama Disease. The Instructor explained how the oil was used. Mr. Hay was heartily thanked. Brief discussion on the formation of a Loan Bank in connection with the Branch. took place. The matter was deferred. Authorised Persons reported all in order. Two persons paid subscriptions and meeting ended with the National Anthem.

Fellowship P.O. J. S. DAVIS,
Secretary.

Drapers.—Meeting 3rd May. Present: The Instructor, 11 members and several visitors two of whom became members. The minutes of the annual meeting were read and confirmed. The Instructor spoke on 'corn growing'. A vote of thanks was conveyed to him. There was a discussion on the illegal selection of bananas by persons in the district. The house decided to take up the matter with the police. The meeting terminated with the singing of the National Anthem.

Port Antonio P.O. (MISS) M. P. DUNCAN,
Secretary.

Swift River.—Annual meeting 14th May. Present: The President, Mr. A. A. Lecky Mr. and Mrs. W. Harper Watson, Instructor Graham, fifteen other members and many visitors four of whom became members. The President on behalf of the members extended

rery warm welcome to Mr. and Mrs Watson. The Secretary's and Treasurer's report s read and adopted. The report of the last Annual General Meeting was also read. r. C. H. Gray on behalf of the members *moved a vote of thanks to the past officers for* ɜir services. Election of officers resulted thus: Mr. A. A. Lecky, President, Mr. M. A. cky, 1st Vice-President; Mr. William Johnson, 2nd Vice-President and Mr. Thad. uir, 3rd Vice-President, Miss R. C. Gray, Secretary and Treasurer and Miss L. Ramsay sistant Secretary. Mr. Watson asked to address the meeting, said, that he listened enly to the minutes of the last meeting and was very pleased to hear of the discussion ey had at that meeting. He assured the members that in taking a keen interest in the gricultural Society they were taking an interest in themselves. He urged them to rn out in the afternoon, so as to take advantage of demonstrations given by the structor. He spoke on the Fluke worm that attacks sheep and the Tape worm that fastened to the liver of pigs and hinders the growth of these animals. Capsules he id can be obtained at the Agricultural Society's Office or dispensaries, that can be ven to these Animals to overcome such attacks. He promised to return in the near ture and give a lecture on pig rearing. A vote of thanks was conveyed to r. Watson. Mr. Graham in his address apologised for the absence of Mr. Jones. He vited members to attend the demonstration which would be carried out at Mr. O. ɜcky's home on young Cockerels on the 2nd Tuesday in June. Mr. C. H. Gray, *esident of the Portland Branches Associated gave notice of a meeting of the* P. B. ssociation in the 3rd week in June. Delegates appointed to represent the Branch were: isses L. Ramsay, L. Peralto, Messrs. R. P. Gray, T. Muir and Theo. Wright. The ational Anthem closed the meeting.

Swift River P.O. (MISS) R. C. GRAY,
Secretary.

Tranquility:—The following are short accounts of our branch's meetings:—16.1.35. ttendance, 27. Business—Routine. Reports from Authorised Persons, Agricultural nplements. Address by Instructor Jones. 20.2.35. Attendance, 19. Business. [ay Pen Show. Early enrolment for year 1935-36. Financial Statement, Post Office, icket Distributor for the surrounding districts. 20.3.35. Attendance 21. Business. esolution re Post Office. Plants for Annual meeting. Address by Instructor Jones. ccount of Half-Yearly meeting 10th January 1935 by Instructor Jones. 17.5.35. ttendance 25. Business—Routine. Plans for Concert 11th June. Ticket Distributor. ɪquiry re Attendance of Authorized Persons. Caution Boards for School. Decision) hold P.B.A. affiliation fee until satisfied with the functioning.

Balcarres P.O. N. W. MCCLERY,
Secretary.

Mt. Hermon.—Meeting held 12.6.35. Mr. Glaister Baxter, secretary of the Parent ociety was present by special invitation and the following neighbouring branches which rere invited were represented:—Swift River, Fairy Hill, Skibo, Claverty Cottage, Bybrook nd Tranquility. Present were: Mr. V. O. King, President and many distinguished isitors including Mrs. Baxter and niece. A hearty welcome was extended to Mr. Baxter, nd he addressed the conference. Mr. Baxter spoke in an interesting and practical ıanner, pointing out the evil of putting "all our eggs in one basket." Speaking of the rops we could successfully cultivate, he dealt with Coffee, Yams, Irish Potatoes, Citrus, 'omato, Corn, and Banana. "You cannot farm properly without live stock," he said our job is to try and keep the land in the same state of fertility as we got it. We are rustees of the soil. We must pass it on to our children as good or even better than we ot it." He went on to deal with the value of Fertilizers and promised to help those who rere willing to try it out. He closed with an appeal for co-operation. "The agriculturists

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must stick together, combine, organize, unless you do, you cannot have real progress. We need leaders who will give patriotic service. It is impossible to benefit others without benefiting yourself. The members of the Board of Management are giving patriotic service because they want to increase the prosperity of the country." Mr. C. H. Gray, J.P., moved a hearty vote of thanks in which he spoke in the highest terms of the lecture and of the good work Mr. Baxter was doing as Secretary of the J.A.S. Mr. A. E. Tucker seconded the vote of thanks and several complimentary speeches were made by visiting members of other branches. After a few minor matters were taken, the meeting ended with the singing of the National Anthem.

Swift River P.O. J. L. Hinds,
Secretary.

ST. ANN: York Valley.—Meeting May 1st. Present: President, Secretary and 14 members. Instructor unavoidably absent. The Treasurer presented his report for year ending 31st March, 1935. This was adopted. The Auditors gave their report for which they were thanked. Resolutions on the following subjects for the Annual General meeting of the St. Ann Branches Associated were presented and discusseed. (1) Medical Examination of domestic helps. (2) Trained District Maternity Nurses. (3) Two Associationsof Branches for St. Ann i.e., E. St. Ann Branches Associated and W. St. Ann Branches Associated. A very interesting and profitable discussion on Ginger cultivation followed in which many points of vital interest to members were brought out. The Secretary moved a resolution that a Ginger Growers' Association be formed by the ginger growers of York Valley and surrounding districts." Several members spoke in support of the resolution which was passed nem. con. An inaugural meeting was arranged for the 1st Wendesday in June. Other matters of a domestic nature were dealt with, and the meeting ended with the National Anthem.

Borobridge P.O. E. J. Hall,
Secretary.

CLARENDON: Croft's Hill.—Annual meeting 3.5.35. Present: Rev. O. T. Johnston, president; Instructor W. L. Shirley, and ten members. The Instructor was in the district during the day and carried out budding operations. He had come prepared to distribute citrus seedlings, but the agriculturists were unprepared. The election of officers resulted thus: Rev. O. T. Johnston, President; Rev. W. J. Rennals, 1st Vice-President; David Graham, 2nd Vice President; Messrs V. E. Mitchell, Secretary, Paul McKenzie Treasurer, re-elected, and Miss A. Isabelle Williams, Assistant Secretary; Rev. W. J. Rennalls and Mr. S. McLeod were elected auditors. The Instructor congratulated those who had obtained prizes at the recent All-Island Show, and gave a 'talk' on coffee—the necessity of proper curing, etc. After a series of votes of thanks and replies, the meeting close with the National Anthem.

Croft's Hill. A. Isabelle Williams,
Asst. Secretary.

Rock.—Meeting 22.5.35. Present: Mr. T. C. Swainson, President, 5 other officers and over 50 others including members and visitors. Mr. G. G. R. Sharp of Trout Hall, gave a lecture on citrus growing in its 3 stages. He had 24 years experience in the line, and gave examples of successful experiments carried out. A vote of thanks was accorded him. New members were admitted. Instructor A. L. Virtue then joined the meeting. Messrs. A. J. Scott and N. A. Blair were appointed Auditors. Report by the Instructor showed that the branch gained 7 prizes in the All Island Show at May Pen. He spoke on potato growing. A vote of thanks was voted to Mr. H. G. Dunkley, J.P., President C. B. A. for the gift of a minute book. Minor matters were discussed and the meeting terminated with the singing of the National Anthem.

H. D. Thomas,
Secretary.

Red Hills.—Meeting May 7th. There were 26 members present and 7 lady visitors. Seven new members were registered. Six Authorised Persons were nominated. A resolution re road improvement was discussed. The Secretary was instructed to ask the Instructor for the parish to attend Branch meeting fixed for June 3rd, 1935. A debate was arranged for next meeting, "Cane Versus Banana." After a short address by the President.the meeting terminated by the singing of the National Anthem.

PoCrooked River P.O. G. A. E. Mills,
Secretary.

Swift River.- Park.—Annual meeting 25th April. Present: Mr. J. A. Anderson, Mr. and Mrs. W. -uctor A. L. Virtue; Rev. C. A. Spencer, M.P.B.; Mr. H. G. Dunkley, visitors four of whom S. E. Daley, 37 other members and 3 visitors. Prizes to winners of

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; fourth Yellow Yam Growing Competition were distributed and competitors con-ıtulated and encouraged. The President gave an interesting report on the year's work. ıe Secretary's and Treasurer's reports were given and adopted. Mr. Dunkley spoke glowing terms of the work of the Secretary. Election of officers resulted thus: Mr, A. Anderson, President; (re-elected) Messrs. A. Marshalleck, G. Temple and E. M. ınton, first second and third Vice-Presidents, respectively, Mr. E. N. Clark, easurer, Misses L. V. Robinson and C. V. Williams, Secretary and Assistant (all three -elected). Practical addresses were given by Rev. C. H. Spencer, Messrs. H. G. unkley and S. E. Daley. Vote of thanks were conveyed to the speakers. Another ellow Yam Growing Competition was discussed Minor matters were dealt with and e National Anthem terminated the meeting.

Richmond Park P.O. (MISS) L. V. ROBINSON,
Secretary.

Blackwoods.--Meeting 13.6.35. Present: Mr. R. A. Thomas, President; 8 other embers and 3 visitors. Mr. H. C. Robotham was appointed delegate to the Half-early General meeting. The President took the opportunity of congratulating Mr. ·. N. Hamilton on his winning 12 prizes in the recent May Pen All Island Show. The ection of officers resulted as follows: Mr. M. G. Boothe, President; Messrs. D. N. lamilton, David King and Theo. Davis, 1st, 2nd and 3rd Vice-Presidents respectively; lr. H. C. Robotham, Secretary, and Mr. R. H. Harris re-elected Treasurer. Authorised erson reported one arrest. Notice of motion re non attendance of Authorised ersons was given. The prevalence of banana buying in the district without license as brought to light and fully discussed. Minor matters having been dealt with, Mr. . A. Thomas made a strong appeal to the house in aid of the T.B. Sanitorium. The bsence of the Instructor, through illness was regretted. The National Anthem closed ıe meeting.

Thompson Town P.O. H. C. ROBOTHAM,
Secretary.

MANCHESTER: Comfort Hall.—Meeting 10.5.35. Present: Messrs D. D. Palmer, 'resident; Instructor Thompson along with 18 members and one visitor. As Messrs. waby and Getfield who promised to address the meeting, did not attend, Mr. Perrins poke on the careless and frequent use of fire. He was supported by H. A. White and). Williams. The speakers were thanked. Messrs. D. D. Palmer and W. A. White vere appointed delegates to the Half-Yearly meeting of the M.B.A. Resolution re the ıeed for a Telephone Office was left to a Committee to be drafted. The Instructor ;ave each member present (17) cane tops of the P.O.J. 2878. He was very heartily hanked. He then gave a very interesting lecture on fire and appealed to the members o put a stop to the harmful uses of it. He also instructed on the planting of the cane ops. A vote of thanks was accorded him. The Instructor demonstrated budding on Mr. D. D. Palmer's place also on the school premises. Twelve members saw the lemonstrations. The meeting closed with the singing of the National Anthem.

Comfort Hall P.O. W. A. WHITE,
Secretary.

Mile Gully.—Annual meeting held at the Grove Place Farm on 26.4.35, with 1st Vice-President in the chair. Six new members were enrolled. One Authorised person reported all correct in his district. The Secretary presented his 18th Annual report which was adopted, and a vote of thanks was accorded him for his comprehensive report. His Hon. the Custos paid a warm tribute to the Secretary for his years work and very forcefully stressed the point of improved attendance of members at branch meetings. Mr. A. Thelwell, Supt. of the Farm treated the members and friends to very interesting demon-

strations at the Farm both on animals and plants, for which he was very warmly thanked The members thoroughly enjoyed the outing. Election of officers:—President, Mr. A. F Clarke, 1st. Vice-President, Mr. W. G. Nairne; 2nd Vice-President, Mrs. R. E. Hart 3rd Vice President; Mr. J. E. Fractus; Secretary and Treasurer, Mr. T. A. Morris re elected, Assistant Secretary, Mr. A. P. Bailey. A Committee was also appointed Besides the officers and Instructor Darby several members and visitors were present The roll was marked, it being 6. pm. this interesting meeting terminated with the singing of the National Anthem.

Mile Gully. T. A. MORRIS,
Secretary.

Snowdon.—Meeting 11th June. Present were H. E. Lewis, Esq., J.P. President Messrs. H. T. Ronaldson, J. B. Thursfield, H. H. Kohler, 12 other members and a few visitors. The following were discussed:—(a) Sale of budded citrus plants from the nursery. (b) Laxity on the part of Authorised Persons. (c) Tomato growing. (d) A citrus pruning competition for the Branch members. The Treasurer's financial statement showed the Branch in a very healthy condition financially. The delegates to the meeting of the M.B.A. gave their reports. Mr. Kohler and Mr. J. B. Thursfield spoke in high praise of the demonstrations and experiments carried out there. The Branch voted 1 guinea to take a party of school children to the Grove Place Farm. Mr. H. H. Kohler was elected delegate to the General Half-Yearly meeting. Letter from the Parent Society re "Developing a seedless variety of Jamaica orange" was dealt with, the suggestion commended itself. The meeting closed with the National Anthem.

Newport P.O. FRED. H. JONES,
Secretary.

Waterloo-Harry Watch Branch.—Annual meeting June 7th. Present: Mr. E. Coley President, and 10 members. The Waterloo-Caenwood road about which a petition had already been sent to the Legislative Council was discussed. Correspondence regarding Parochial Competition among Citrus growers was discussed. Election of Officers as follows: Mr. E. Coley; President; Mr. W. Mullins, 1st Vice-President; Mr. M. Wesley, 2nd Vice President; Mr. A. P. Bailey, Secretary; Miss B. Bell, Assistant Secretary; Mrs. E. Coley, Treasurer. The President brought forward the question of Co-operative marketing of coffee by the members. After the matter was discussed it was felt that something could be done in that direction. The meeting adjourned.

Harry Watch P.O. ALFRED P. BAILEY,
Secretary.

ST. CATHERINE: Victoria.—Meeting 20th May. Mr. A. Harvey the 1st Vice President, presided. As matters arising from the minutes the Secretary gave reasons for the postponement of the Lamp unveiling service. Plans were made for this on Sunday 2nd June, when the donor of the lamp the Honourable E. A. McNeil and wife are expected to be present. Messrs. Harvey and Darby and the Secretary were elected delegates to the Half-Yearly meeting of the parish Association. Resolutions for the meeting were dealt with. A working Committee was appointed. Minor matters were dealt with and the meeting rose.

Linstead P.O. M. L. BURRELL,
Secretary.

Jericho.—Meeting 11th June. Present: President, A. M. Cassells, Esq., Instructor, Hastings; ten members and a few friends. It was decided to forward a resolution to the P.M.G. re the loss of money in the P.O. A report of the Half-Yearly meeting held at Cascade was given by Mr. Virtue. He encouraged friends to join. Two new members were enrolled. Enrolment of officers was as follows. Mr. A. M. Cassells, President; Messrs. J. Grant, J. Campbell and T. Stuart, Vice-Presidents. Miss Z. McKenzie, Secretary, Mrs. Virtue, Treasurer. Instructor gave an address on the future welfare of Agriculturists. He advised members to try at products other than banana, e.g. citrus and tomatoes. He promised few members sour orange plants grafted with sweet orange or grape fruit. so as to give them the privilege of trying the product. He also promised to visit a few fields. The meeting terminated with the singing of the National Anthem.

Jericho P.O. (Miss) Z. McKENZIE,
Secretary.

ST. JAMES: Catadupa.—Meeting 8.6.35.. Present: D. N. Walker, President; other officers, and nine members. Minutes and correspondence were dealt with. Authorised Persons reported. The President addressed meeting, urged members to

rear small stock, especially goats, and to grow citrus. Minor matters were discussed. National Anthem brought the meeting to its close.

Catadupa. L. A. E. Gray, Acting Secretary.

WESTMORELAND: Cairn Curran.—Meeting 10.5.35. Present: Mr. E. Reid, President, thirteen other members and a few visitors. Instructor Kelly after giving demonstration on citrus on different holdings joined the meeting and gave a very interesting lecture on Bananas, Citrus and Cocoa. He was tendered a vote of thanks. Mr. Prout expressed regret at the dismissal of Mr. Coote, the Bee Instructor. The Branch joined with him and expressed the hope that the Board of Management may see their way to reinstate Mr. Coote. Minor matters were disscussed. A few members paid their dues and the singing of the King brought the meeting to a close.

Darliston P.O. Jas. A. Palmer, Secretary.

Darliston.—Annual meeting 26th April. Present were: Mr. C. J. Stewart, President; Instructor W. D. Marr, many other members and 4 visitors, two of whom became members.. Some buisness concerning the May Pen Show was dealt with. Authorised Persons reported "All correct." Secretary and President gave their annual reports. Hearty votes of thanks were given them. All the officers were re-elected. Messrs. I. Jones and J. James were elected Auditors. Two Authorized Persons were nominated. Some minor matters and the singing of the National Anthem brought the meeting to a close.

Darliston P.O. A. A. McDonald, Secretary.

Holly Hill.—Annual meeting held 17th May. President, Instructor Marr, and 9 members. Election of officers resulted as follows: Mr. P. N. Whittaker, President; Mr. U. Hemans, 1st Vice President; Mr. H. H. Ricketts, 2nd Vice-President; Mr. W. Spence, 3rd Vice-President; Miss S. E. Thompson, Treasurer; the Secretary was re-elected, also Miss C. Henry as assistant Secretary. The deviation of certain roads in the district was discussed and the Secretary was deputed to write to the Parochial Board after interviewing parties whose lands would require to be used. Mr. W. Spence gave account of his last planting of seed potatoes which proved a failure. After discussion it was concluded that the failure was due to his own fault. The Instructor advised on the planting of potatoes. The location of the show was changed from Enfield to Glenhaven. The President advised members to cultivate vegetables. The Instructor outlined few facts of different persons cultivating tomatoes half acre and 2 acres bringing separately £50 and £200. He also referred to the article in the Journals about Red Peas. He arranged to bring Grapefruit plants for members later. The National Anthem closed the meeting.

Darliston P.O. E. F. I. Cooke, Secretary.

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Mt. Airey.—Annual meeting May 21st. Present: Messrs. M. H. Segre, President; Dr. Seaton, the Instructor, the Secretary and several members and visitors. A resolution was passed thanking the President and his colleagues for their energetic work in obtaining a public water supply for the Mt. Airey and surrounding districts. Messrs. C. H. Lynch, A. McKenzie, R. Parkinson, Misses J. A. Muir, and I. Froome were appointed delegates to the meeting of the Westmoreland Branches Associated. Dr. Seaton delivered a very valuable address in which he gave many hints on the welfare of the Island and the people. The election of officers next took place and resulted as follows: Mr. M. H. Segre, President; Mr. C. H. Lynch, 1st Vice-President; Mr. A. McKenzie, 2nd Vice-President, Mr. R. Parkinson, 3rd Vice President; Misses C. L. Lynch, Secretary; J. A. Muir, Assistant Secretary; I. Froome, Treasurer. The President expressed his thanks for being re-elected and promised his whole hearted support. The Instructor commented on Dr. Seaton's address. He encouraged visitors to become members, and again stressed the importance of co-operation. The President gave his closing remarks and the National Anthem brought the meeting to a close.

(Miss). J. A. Muir,
Asst. Secretary.

Sheffield.—Annual meeting 15th May. Present Mr. T. A. Campbell, President Instructor Kelly, ten other members and some visitors. Report from the Treasurer and Secretary were given and adopted. All the officers for the past year were unanimously re-elected. Mr. Kelly gave a lengthy lecture on the various varieties of citrus fruits and which is best to cultivate to obtain the best market price. He also explained the difference of budding and engrafting and how it is to be done. A vote of thanks was accorded him. He spoke of the Darliston Show. Minor matters were dealt with and the meeting terminated by the singing of the National Anthem.

Sheffield P.O. Saml. M. Hall,
Secretary.

New Road.—Meeting May 20. Present: Mr. R. E. Morris, President; Instructor G Wray, 19 other regular members. Arrangements were made for a more efficient management of the business of the Branch. The President advocated an increase of membership Mr. Wray said he thought the right men were put in harness and felt sure that much success would result. He emphasised the importance of Agricultural Journals as a means of supplying first rate agricultural knowledge. He made special reference to an article on the marketing of red peas as was published in a recent issue and expressed his opinion, that if growers would pool their crops they would be able to hold their own in the local market. After much discussion the President observed that the great handicap lay in the lack of suitable and convenient curing methods. Other members agreed and the Secretary was instructed to refer the matter to the Parent Society. A motion that the Branch takes steps to secure a Berkshire boar was passed and the Secretary was instructed to communicate regarding the matter. It was decided that the Branch be affiliated with the St. Elizabeth Branches Associated. Authorised Persons reported one arrest with subsequent conviction. After roll call the meeting terminated with the National Anthem.

Newmarket P.O. V. W. T. Fagan,
Secretary.

Blauwearie.—Annual meeting 12th June. Rev. R. C. Gordon, President, gave a survey of the activities of the Branch during the year and exhorted all to unite for the good of all. 33 persons were in attendance besides Instructor Kelly. Both Authorised Persons present reported all correct in their area. The yearly reports from the Secretary and Treasurer were adopted, after which the thanks of the house was conveyed to the officer for them. After discussion it was agreed that the 1st Tuesday of each month at 6 p.m. be utilized for Branch meetings. Election of officers resulted in Rev. R. C. Gordon President; W. McKenzie and H. Smith, 1st and 2nd Vice-Prieisidents, respectively, and J. O. Ramsay, Secretary and Treasurer. A Managing Committee was appointed. Rev R. C. Gordon and Messrs. J. Jolly, W. McKenzie, Theop. Reid and the Secretary were appointed delegates to the meeting of the Westmoreland Branches Associated. Instructor Kelly gave a very forceful address his theme being unity. Many useful facts were given such as the need for a larger membership in the Society. The position of Kenya over our coffee and some of the reasons therefor. He promised to deal with the curing of coffee at the next monthly meeting. For this encouraging address he was heartily thanked. After a very profitable meeting the National Anthem was sung.

Friendship P.O. J. O. Ramsay,
Secretary.

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ST. MARY: Baxter's Mtn.—Annual meeting 21.5.35. The minutes of the last annual meeting were read and adopted. H. Smiley was nominated an Authorised Person. Two new members were enrolled. Election of officers: The President, Secretary and Treasurer were re-elected. Other officers elected were: 1st Vice President, Mr. A. Strachan,; 2nd Vice President, Mr. Z. Strachan, 3rd Vice President, Mr. H. Smiley; Assistant Secretary, Mr. A. T. Harris. A Committee was also formed. Minor matters were discussed and the roll was called. The National Anthem closed the meeting.

Annotto Bay. R. J. Lawson Ricketts,
Secretary.

Belfield.—Meeting 11th June. Present: Mr. P. R. Somers, President; Mr. D. A. Jones, Instructor, and 7 members, one Authorised Person reported one arrest. The Instructor spoke to the meeting on field sanitation and the necessity of putting in permanent crops where bananas did not thrive or on places that had had Panama Disease. Suggested planting of citrus and cane as soil was suitable, also urged members to be true to the Branch and try to get new members to join. Meeting ended with the "King."

Belfield P.O. M. L. Rennalls,
Secretary.

Lucky Hill.—Meeting 21.5.35. Present: Mr. T. A. Burke, 2nd Vice President in the chair, 21 other members, 3 visitors one of whom became a member, and Instructor L. A. M. B. Coke. The Secretary reported that the plot was started. The Instructor advised on it, and the meeting decided to have it fenced. The Committee in re loans gave their report which was adopted and the meeting instructed them to draft a resolution to send to the Associated Branches and also to send a copy to other branches in the Island. Tobacco industry and poultry rearing were discussed at length. Rev. R. C. Young, Messrs. T. A. Burke and F. W. Geohaghan were appointed delegates to the Half-Yearly conference at Highgate. The Treasurer gave her report showing a balance of 7/5½d. in hand. She was thanked. Mr. Vernon suggested that resolutions be sent to the Associated Branches, instead of the Half-Yearly meetings of the Parent Society and explained the advantages of doing so. Five Authorised Persons reported on their work. New members were elected and dues taken. Votes of thanks and appreciation were given to Messrs. McCormack and Spence for their exhibits at the Muir Park Show, they having obtained prizes in Bee exhibits and Banana figs respectively. Vegetable culture was listed for discussion at next meeting. H. Reid was nominated an Authorised Person. The meeting adjourned with the singing of the National Anthem.

Lucky Hill P.O. F. Wright Geohaghan,
Secretary.

Mt. Regale.—Meeting May 3rd. Present: Mr. G. A. Hylton, President; and several other members. The President mentioned the matter of crows attacking and eating young chickens. Mr. T. W. Mattocks said it was a common practice of crows, especially in dry weather. It was agreed that the destruction of crows attacking young chickens be dealt with at the next meeting. It was agreed that the matter of stolen goods which are perishable being weighed at the Police Station, and paid for after the trial of the case be taken up. The Secretary was asked to recall handcuffs and badges from inactive Authorised Persons. The meeting was concluded by the singing of the National Anthem.

Mt. Regale P.O. T. A. Hannam,
Secretary.

Tryall Hill.—Annual meeting 15.4.35. The Secretary presented an account of the past year's work which showed great progress when compared with the previous year. The Accounts were audited. The Instructor gave a very pleasing address to a very representative gathering. He called attention to the necessity of a strong branch. The new list of members showed 27 paid up members. Many others promised to pay at next meeting. Election of Officers resulted as follows: President, Mr. J. S. Dyke; 1st Vice President, Mr. E. Henderson; 2nd Vice President, Mr. N. Somers; Secretary, A. A. Constable; Assistant Secretary, Mr. Leo. Somers; Treasurer, Mr. A. Davis. Before the meeting the Instructor visited holdings around the district, and carried out budding on the school premises in the presence of 42 persons besides the pupils of the school. The meeting was very interesting. The singing of the National Anthem closed the meeting.

Annotto Bay P.O. A. A. CONSTABLE,
Secretary.

ST. ANDREW Content Gap.—Meeting 18.5.35. Present: Mr. Laban Lyttle, presiding, eight other members and three visitors. The question of water for the district was again considered and a letter was submitted from W. H. Landale Esq., Acting Custos for the parish stating his willingness to visit the district and see the situation. Mr. T. N. Duval promised to mention the matter at the meeting of the Kingston and St. Andrew Corporation. The Secretary was advised to forward letters to both gentlemen. A new member was received. Members were asked to co-operate so as to make the Branch successful. A few remarks were made by the President and others and the meeting rose with the singing of the National Anthem.

St. Peters P.O. F. A. WILSON,
Secretary.

Halls Delight.—Meeting 6th April. Present: Mr. T. Scott, 2nd Vice President, presiding, 18 other members and 5 visitors. The 1st Vice President suggested having a working committee; this he said would be of great influence in increasing the membership. A committee of 8 members was formed, and decided to do forking on Mrs. M. Williams' holding on the 14th April. It was decided to have a Juvenile band. Mr. Thomas Scott was appointed delegate to the Half-Yearly General meeting in July next. Miss Rose Davis then gave a most interesting talk, after which the singing of the National Anthem brought the meeting to a close.

Mavis Bank P.O. R. HIGGINGS,
Secretary.

Red Hills.—Report for year ended 31.3.35. The membership has increased from 30 to 31. There have been 9 regular monthly meeting with an average attendance of 11. Mr. A. P. Hanson attended 5 of these meetings, giving helpful hints from time to time on the correct rearing of and preparing of crops for market, and during the hours of sunlight being a welcome worker and helper in the fields of those members who desired his aid. As the result of a largely signed petition from this Branch, and a deputation waiting on the Hon. Director of Public Works and putting before him the dreadful state of the roadway and its tragic state in times of rain, there are hopes that the bridge will be sanctioned when the estimates are being considered by the Hon. Legislative Council Hon. G. S. Seymour gave this matter his support. The Hon. G. S. Seymour, M.L.C., the Mayor Hon. H. A. L. Simpson and Councillors Duval, McLaughlin and Chisholm and the executive officers of the Branch have been trying to establish a water supply for the district. The Branch hopes that Red Hills will obtain better medical facilities when the Medical Estimates are being considered due to the efforts made in this direction during the year. Due to representations made and proper treatment given, yaws is almost exterminated from this community. Increased shelter at markets of the Corporate Area has been noted with interest as this Branch made representations regarding this matter. The Branch has a balance of £2 5s. 2d. in hand, and owns a Sprayer, 3 chairs, 1 lamp and 1 case white lime. A coffee pulper fund has been started with a view to purchasing and setting up such a machine. Eight members have already contributed £1 12s. 0d., and it is hoped the machine will be ready for the forthcoming crop. At one meeting a most interesting Hat Debate took place.

Red Hills P.O. (MISS) D. H. WILSON,
Secretary.

Westphalia.—Meeting held 15th April. Present: Mr. Azariah Campbell, President, and 16 other members and six visitors. New officers were elected. The work done during the past year was considered satisfactory. Authorised Persons reported all correct. Badges and handcuffs were examined. Two new members were enrolled and the meeting ended with the National Anthem.

Mavis Bank P.O. STEPHEN PARKE,
Secretary.

Other Reports Received.

Branch.	Date of Meeting.	Attendance.	Business.	Secretary.
St. Ann.				
Bamboo ..	27.4.35		Annual Meeting. Panama Disease. Secretary's Report. Election of Officers. Potato Blight. Purchase of Spray. Address by Instructor Atkinson.	J. Lowe.
Claremont ..	2.5.35	28	Demonstration Plot. Routine matters. Address by Instructor Atkinson.	P. M. McCalla.
Brittonville	19.6.35		Peanut Industry. Juvenile Branch. Authorised Person.	C. Thomas.
St. Andrew:				
Hagley Gap ..	3.5.35		Annual Meeting. Election of Officers. Authorised Persons.	J. B. Heywood.
Tower Hill ..	13.5.35		Grindstone. Water Supply. Ellection of Officers. Authorised Persons. Instructors' Attendance.	A. V. Hague.
Rock Hall	13.5.35	16	Election of delegates to Parish Associated meeting. Election of Officers. Road. Registration Office. Authorised Persons. Address by Instructor Hanson.	(Mrs.) Bertha Heslop.
Clarendon:				
Pleasant Valley	21.5.35	25	Corn Industry. Authorised Person. Address by Instructor Virtue.	(Mrs.) A. A. Flyter.
Frankfield	31.5.35	9	Appointment of Delegate to General meeting. Grant to Society. Widening of Square at Frankfield. Excursion to Grove Place.	W. T. Edwards.
Mocho	7.6.35	11	Citrus. Appointment of Delegate. Nomination for Board of Management. Authorised Persons.	(Miss) O. L. Dyer.
Brandon Hill .	20.5.35	49	Authorsied Persons. Election of delegate to Half-Yearly General meeting. Resolutions. Minor crops.	(Miss E. A. Graham.
St. Mary:				
Epsom	1.5.35	12	Soils. Holdings. Addresses by Instructors Jones and Henderson	F. A. Edwards
Hampstead .	20.5.35	15	Giant Plantain. Demonstration Plot. Authorised Persons. Savings Bank. Address by Instrucor Coke.	H. G. A. White-Davis.
Marlborough	28.5.35	16	Election of Delegate to Half-Yearly meeting. Authorised Persons. Election of Officers. Address by Instrdctor Jones.	D. Aug. Ford.
Lewis Store ..	2.4.35	13	Panama Disease. Authorised Persons. Election of officers.	Audley Bullock

Other Reports Received, Contd.

Branch.	Date of Meeting.	Attendance.	Business.	Secretary.
Oxford	11.6.35		Water Supply. Authorised Persons. Appointment of delegates to Parish Associated Meeting.	(Mrs.) R. A. Thomas.
Manchester: Devon Potato Growers	10.5.35	20	Purchase of ram. Election of delegate to Parish Association Meeting. Storing of potatoes. Election of Officers. Addresses by Chairman, Messrs. J. M. Coke, H. A. Mendes and the Secretary.	H. E. Gayle.
New Green	2.5.35	Over 20	Secretary's and Treasurer's Reports. Election of Officers. Citrus nursery. Address by Instructor Darby.	E. A. Grant.
Old England ..	7.5.35	14	Annual meeting. Appointment of delegate to parish Association meeting. Purchase of ram. Election of Officers. Authorised Persons.	C. P. Watson
St. Catherine: Content ..	22.5.35 and	..	Sub-Branch at Planters. Reports on Juvenile branch and Women's Auxiliary. Election of Officers. Matters re Parish Association meeting.	G. G. Planter.
Content ..	24.4.235.	90	Report on campaigning meeting at Planters. Authorised Persons. Addresses by Instructor Martin and Corporal Ewan	
Ewarton	2.5.35		Annual meeting. Election of Officers. Importation of eggs. Election of delegates to Parish Association meeting. Address by Hon. E. A. McNeill.	W. B. Leslie
Princessfield ..	27.5.35		Appointment of Delegate to General Meeting. Authorised Persons.	P. G. Graham
Springfield ..	21.5.35	14	Election of Officers.	S. C. Matthews.
Bellas Gate	10.6.35	..	Visit of the Governor. Deputation to Parochial Board. Authorised Persons. Report of delegate on Parish Association Meeting. Financial Statement. Election of delegate to General meeting. Nonmination to Board of Management.	A. A. McCardy
Hampshire ..	28.5.35	26	Appointment of delegates to meeting of Parish Association and General meeting. Catch crops. Authorised Persons. Resolutions re Citrus. Savings Bank, and Telephone Station. Addresses by President and Instructor Byles.	H. G. A. White.

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Other Reports Received, Contd.

Branch.	Date of Meeting.	Attendance.	Business.	Secretary.
Lucky Valley ..	13. 6. 35	25	Annual report. Report of *Parish Association meeting.* Vegetables.	(Mrs.) S. B. Woodham.
St. Thomas:				
Wilmington ..	22.5.35	..	Water Supply. Appointment of delegates to Parish Association meeting. Resolutions.	W. A. Thompson
Middleton ..	29. 5.35	9	Appointment of delegates to Parish Association meeting and General meeting. Minor crops and marketing. Address by Instructor McLaren	B. S. Blake.
St. Elizabeth:				
Upper Pedro Plains	7.6.35	11	Vegetable Peanuts, and *Cashew Industries.* Agricultural Tour. "Agricultural Week."	I S. Millard
St. James:				
Roehampton	11.5.35	10	Water Supply. Citrus. Roads. Cultivation of Corn, Redpeas and Pine apples. Show.	J. Aug. Rhoden.
Salt Spring ..	8.5.35		Appointment of Valuators. Panama Disease. Treasurers' Report.	L. E. Dillon.
Portland:				
Claverty Cottage ..	11.5.35		Annual meeting. Reports by Secretary and Treasurer. Election of Officers, Land *Settlement.* Road. Yam Competition. Address by Instructor Jones.	S. T. Young.
Craigmill ..	7.5.35.		Annual Meeting. Authorised Persons. Debate. Reports by Secretary and Treasurer. Election of Officers.	(Rev.) T. Lawrence.
Trelawny				
Alps ..	17.54.35	45	Annual Meeting. Report by Secretary. Election of Officers. Addresses by Instructor Thompson and Rev. J. A. Edwards.	Ed. N. Burke.
Bunkers Hill ..	2.5.35	18	Annual Meeting. Post Office. Authorised Persons.	E. H. Brown.
Deeside ..	8.5.35		Boar. One root system. Authorised Persons. Secretary's report. Election of Officers.	E. Morle.
Spring Garden, Rock Spring	16.5.35	30	Savings Bank. "Talking" meeting. Social. Election of Officers. Post Office. Water supply.	(Miss) L. M. Edwards.
Ulster Spring ..	13.5.35	..	Authorised Persons. Poultry Rearing. Address by Instructor Thompson.	I. C. Williams.
Waldensia ..	6. 5.35		"One root" system. Appointment of Auditors. Authorised Persons.	
Waldensia ..	3.6.35		Vegetables. Election of delegate to General meeting. Contribution to Citrus Competition.	C. C. Lee.

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Vol. XXXIX. AUGUST, 1935. No. 8.

BOARD OF MANAGEMENT.

The regular monthly meeting of the Board of Management of the Jamaica Agricultural Society was held at the office of the Society, 11 North Parade, Kingston, on Wednesday the 5th June, 1935, at 11.30 a.m. There were present: Mr. T. J. Cawley in the chair, and Rev. W. J. Thompson, Vice Presidents, Hon. A. C. Barnes, Director of Agriculture, (*ex-officio*), Messrs. Sidney Barton, C. O. Cover, T. P. V. McDaniel, U. Theo. McKay, D. D. Phillips, P. W. Sangster, S. M. Walker, W. H. W. Westmorland, and T. R. Williams, Mr. P. St. L. Bacquie, Supervisor of Instructors and the Secretary, Glaister Baxter.

Apologies for Absence.—
Apologies for absence were submitted on behalf of Hon. R. Ehrenstein, Messrs. H. E. Lewis and W. H. Watson.

Confirmation of Minutes of meeting held 1st May, 1935.—
Copy of the minutes of the regular meeting having been sent to each member of the Board, they were taken as read, and on the motion of Mr. Walker, seconded by Mr. McDaniel, were confirmed.

Confirmation of Minutes of meeting held 15th May.—
Copy of the minutes of the adjourned meeting held on the 15th May having been sent to each member of the Board, they were taken as read, and on the motion of Mr. Thompson, seconded by Mr. McKay, were confirmed.

Matters arising out of the Minutes of meetings held 1.5.35 and 15.5.35.—
(a) *Statement by Secretary* was submitted as follows:—

4th June, 1935.

To the Board of Management:
Gentlemen:

In accordance with the decision of the Board at their last meeting, Mr. Coote was instructed to immediately resume his duties of Bee Instructor. This he did.

With reference to concession for analysis of soils I refer the Board to Minutes of Board Meeting of 7th September, 1932, appearing in the October Journal herewith.

Steps have been taken to stock papaw seeds.

With reference to Mr. Walker's resolution for a deputation to wait on the Inspector General of Police, an appointment has been obtained for this afternoon at 5 p.m.

A cable has been sent to Messrs. D. J. Scott and Co., London, with regard to our representations to the British Ministry of Health regarding the sale of synthetic honey.

All other correspondence consequent on the deliberations of the Board at their last meeting has been carried through.

(Sgd.) GLAISTER BAXTER.
Secretary.

At Mr. Cover's request, the Secretary read the letter from the Department of Agriculture to which he referred in his statement having reference to the analysis of soils.

On Mr. Cover's suggestion, it was decided that if that was supported by the present Director of Agriculture, the information should be forwarded to the Branch that submitted the resolution.

(b) *Interview with Mr. McArthur re Panama Disease.*—Mr. A. A. McArthur of "Stettin," Albert Town, waited on the Board by appointment and addressed the meeting setting out the methods used by him in Upper Trelawny for the control of Panama Disease. He illustrated on a blackboard the protective trenching method adopted.

Some of the members of the Board asked questions which Mr. McArthur answered.

Mr. McKay, the Chairman and the Director of Agriculture, expressed the thanks of the Board to Mr. McArthur for attending and setting out his views in the matter.

Mr. McArthur then withdrew.

(c) *Letter from C.S.O. re Tobacco Industry.*—The Secretary read the following:—

No. 5663/34. 18th May, 1935.

"I have the honour to refer to your letter C.S.O. No. 91 of the 8th May, 1935, in regard to the improvement of the tobacco industry, and to inform you that the matter is still under consideration by the Government, and that no decision can be announced at the present time.

(Sgd.) A. R. DIGNUM,
for Acting Colonial Secretary.

The Secretary was directed to forward the information to the Chairman of the deputation that waited on the Board regarding the Tobacco Industry.

(d) *Report on Deputation to Elected Members Association.*—The following report was submitted:—

4th June, 1935.

To the Board of Management:

Gentlemen:—

Your deputation appointed to meet the Elected Members Association with a view of placing the difficulties of the Society before the Elected Members did so on the 1st of May last at 5 p.m. The deputation consisted of Rev. W. J. Thompson, Messrs. C. O. Cover, U. Theo. McKay, S. M. Walker, W. Harper Watson and the Secretary.

The deputation was very cordially received and welcomed by the Hon. J. A. G. Smith who was presiding over the Elected Members Association. Facts and figures in relation to the Estimates were explained to the Elected Members and a memorandum of the history of the Society and its objects along woth a copy of the Estimates were handed to the Elected Members.

Rev. Mr. Thompson and Mr. McKay spoke and the Secretary explained certain figures on the estimates, and after the Elected Members had promised to assist us in every way possible in persuading Government to increase the subvention, Mr. Cover thanked the Elected Members on behalf of the deputation for the cordial and sympathetic reception.

(Sgd.) GLAISTER BAXTER,
Secretary.

Mr. McKay moved the adoption of the report.

There was a short discussion after which Mr. Cover seconded the motion for adoption and the report was adopted.

(e) *Reply to Mr. Cover's question re Instructor Byles' travelling.*—The Secretary laid on the table reply to Mr. Cover's question re travelling done by Instructor Byles during November, 1934 and holdings visited by him, and stated that he had forwarded a copy of the reply to Mr. Cover.

(f) *Letter from Beekeepers' Committee re Mr. Coote's reinstatement.*—A letter, dated 22nd May, signed by the President and Secretary of the Beekeeper's Committee, was submitted.

After discussion, on the motion of Mr. McKay, seconded by the Chairman, it was decided that the letter be tabled.

(g) In reply to Mr. Cover's question, notice of which was given at a previous meeting, as follows:—

"Does the Board propose to appoint a Supervisor for the Eastern division of the Island in place of Mr. Carrington, assigned for duty in the Department of Science and Agriculture? If the answer is in the affirmative, when; if in the negative, why, and on what grounds?"

the Chairman stated that at present there were no funds available to enable the Society to appoint a Supervisor.

Mr. Thompson retired from the meeting.

(h) *Reports on subsidized animals in Brown's Town and John's Hall.* The Secretary read the following:—

27th May, 1935.

Subsidized Ram.

The Supervisor,

With reference to yours of the 25th instant, No. 108, asking for a full report on the subsidized ram in the Brown's Town area, I beg to reply as under:—

1. Period of service: 22nd January, 1934 to 27th May, 1935.
2. Nannies served:—34.
3. Kids alive known:—26. Dead:—8. Abortions:—1.
4. Nannies lost trace of:—1.
5. Nannies known to have kidded but number of kids not known:—5. These are in addition to 26 noted above.
6. Nannies not yet kidded, and included in 34 above noted:—6.
7. Owners:—18.

N.B. (i) Owners' names and addresses, and dates of service can be supplied from Record Book if necessary.

(ii) Ram is in very good condition, and is very much above the average size.

(Sgd.) C. M. A. Robotham,
Coleyville P.O.

1st June, 1935.

P. St. L. Bacquie, Esq.,
Supervisor of Instructors,
Mandeville P.O.

Re report on subsidised boar at John's Hall, I visited Mr. S. M. Harrison's place and saw the boar. He is in good condition and I understand is very active.

I attach a copy from Mr. Harrison's Stud Book which shows 44 sows served to date, and he says he has not heard of any sow that should have littered that has not done so.

(Sgd.) J. A. Graham.

The Secretary stated that details regarding the sows served was attached to the report.

(i) *Letters from Chairman Advisory Board and Inspector of Police re Conference on Agricultural Produce Law.*—The Secretary read the following letters:—

Office of Inspector of Produce, Kingston.
8th May, 1935.

"I have the honour to acknowledge receipt of your letter of the 27th April, No. 280, suggesting a conference between the Inspector General of Police, the Advisory Board under the Agricultural Produce Law and the members of your Board of Management, and you have suggested the 5th June as a suitable date.

I believe the Government contemplates bringing in amendments to the Agricultural Produce Law, which will no doubt be published in due course, and until these are published I would suggest that no date be fixed for the proposed meeting."

(Sgd.) A. H. D'Costa,
Chairman Advisory Board under the Agri. Produce Law.

No. *1155/35.* Constabulary Office, Kingston.
13th May, 1935.

"I beg to inform you that I have been appointed by the Inspector General as the Representative of this Department to attend a conference of your Board, with reference to matters affecting the Agricultural Produce Law, and should be pleased if you will in due course notify me of the hour and date of the meeting.

(Sgd.) W. H. Orrett,
Inspector of Police, Kingston.

The Secretary stated that he had forwarded the information contained in Mr. D'Costa's letter to the Inspector General's Department, and the matter was still in abeyance.

(j) *Terms of Employment:*—Letter from Instructor Thompson was read stating that due to frequent removals he was unable to lay his hands on correspondence dealing with the terms of his employment to which he had referred in a previous letter, and asked that reference be made to copies in the office.

The Secretary stated that he had had a search made but was unable to find copies of the correspondence referred to by Instructor Thompson.

(ii) The Secretary then read letter from Instructor Hanson requesting that the whole matter be deferred until a Conference of Instructors were able to meet and discuss the subject.

(iii) The Secretary submitted memos. from thirteen Instructors and the entire Office Staff stating their agreement with the terms of employment as set out in the regulations.

(iv) Letter from Supervisor Bacquie was also read stating that the letter he had received from the office advising him of his appointment as Supervisor of Instructors stated no terms of employment, and requesting that the Board consider favourably fixing his terms on the same lines as those of the Secretary—at three months' notice on either side.

After some discussion on the subject the meeting adjourned for luncheon.

On the resumption there were present: Mr. T. J. Cawley in the chair, Rev. W. J. Thompson, the Director of Agriculture, Messrs. McKay, Walker, McDaniel and Cover, the Supervisor of Instructors and the Secretary.

There was further discussion on the subject of the terms of employment, during which the Secretary stated that he had had no reply to the circular from certain of the Instructors. The following decisions were arrived at:—

(i) That Instructor Thompson be advised that the Board did not appreciate his attitude in regard to the matter under discussion.

(ii) That Instructor Hanson be informed that the Board regretted that they could not grant his request.

(iii) That Instructors Martin, McLaren, Hastings, Coke, Byles and Coote be asked to forward replies to the circular.

During the discussion Mr. Bacquie withdrew his letter, and Messrs. Phillips and Williams took their seats.

Statement of Accounts.—

(a) *Statement for April.*—The Secretary stated that the statement of accounts for April appeared in the minutes.

(b) *Statement for May* was submitted as follows:—

STATEMENT OF ACCOUNTS FOR MAY, 1935.

Receipts.	Estimates. £ s. d.	Total. £ s. d.
To Subscriptions	175 0 0	26 16 5
Affiliation and Journal Fees	175 0 0	46 19 0
Advertisements in Journal	350 0 0	17 1 0
Miscellaneous	10 0 0	8 1 11
Bee Industry Sales	30 0 0	3 10 0
Sales Dept. Profits for 1935-36	400 0 0	..
Government Grant	9,500 0 0	1,583 6 8
Grant for Beekeeping Industry	500 0 0	83 6 8
Appropriation from Surplus A/c	657 5 0	..
	£11,797 5 0	£1,769 1 8
Balance from 31st March, 1935	..	781 7 7
Agricultural Shows	..	9 10 0
Seeds Trading Account	..	628 4 0
		£3,188 3 3
Less Expenditure per contra	..	2,777 2 1
Balance	..	£411 1 2
Cash in hand	39 2 10	
Cash at Barclay's Bank (D.C. & O.)	287 0 6	
Cash at Royal Bank of Canada	84 17 10	411 1 2

Expenditure.	Estimates. £ s. d.	Total. £ s.
By Personal Emoluments:		
Secretary and Office Staff	2,117 5 0	358 5 4
Instructors and Supervisor	7,671 0 0	1,271 17 6
Instructors' Course at Hope	125 0 0	..
Instructors' Tools and Contingencies	75 0 0	22 2 3
Secretary's Office, and Special Travelling	100 0 0	28 2 4
Printing and Stationery	100 0 0	7 16 0
Printing and issuing Journals and Reports	800 0 0	85 15 5
Rent and Rates	58 0 0	9 4 6
Rent of Telephones	27 0 0	4 8 0
Postages and Telegrams	10 0 0	2 17 0
Office Equipment Repairs	15 0 0	0 1 6
Incidentals	50 0 0	14 3 1
Auditors' Fees	25 0 0	..
Library Books	10 0 0	2 18 10
Show Equipment, Repairs and Maintenance	10 0 0	4 13 1
Experiments, Bombay Mango Industry, &c.	100 0 0	10 17 0
New Office Equipment	40 0 0	4 0 0
	£11,333 5 0	£1,827 1 10
Bee-keeping Industry	500 0 0	95 18 7
	£11,833 5 0	
Agricultural Shows	..	15 17 0
Plant Disease Control	..	1 4 8
Travelling Advances Instructors, etc.	..	322 10 0
Seeds Trading Account	..	512 5 0
Local Competitions	..	2 5 0
		£2,777 2 1

(Sgd.) GLAISTER BAXTER, Secretary and Treasurer.

(Sgd.) DONALD MCDONALD, Accountant.

Questions.—

(a) *Mr. McKay re Beekeeping Industry.*—The Secretary stated that *he had received questions from Mr. McKay and prepared answers as follows:—*

Question 1.—During what year was the present Bee-Instructor appointed and at what salary ?

Answer.—The present Bee-Keeping Instructor was appointed on July 1st, 1928 at a salary of £300 per annum with an allowance of £8 per month for travelling.

Question 2.—What is the total amount expended including salaries, labour, purchase of materials and queens, rent, for the years ending 1932, 1933, 1934?

Answer.—The total expenditure for the three years mentioned is:—£1,800 5s. 0d.

Year 1932-33	£660	1	7
Year 1933-34	594	0	4
Year 1934-35	546	3	1
	£1,800	5	0

Question 3.—What was the value of the Honey trade in (a) gallons, (b) money (exports) for the years ending 1932-1933, 1934 ?

Answer.—Statistics are kept by the lb. and are as follows:—

1932:	2,049,169 lbs.	£13,803:	146,372 gals.
1933:	1,519,361 lbs.	11,643:	108,526 gals.
1934:	1,623,214 lbs.	16,360:	115,944 gals.

Question 4.—Does the present Bee-Instructor submit his itineraries (if any) to the Board of Management? If so, to what officer, and is any step taken from time to time to check this itinerary? If yes, by whom is it checked? If not, will this Board of Management take such steps as to have periodical checks?

Answer.—The Bee Instructor submits itineraries on the same lines as any other Instructor to the Secretary of the Society in the absence of the Supervisor for the Eastern District. Now that an acting appointment has been made of Supervisor for the Eastern District itineraries will be submitted to the Supervisor. Comparisons are made of these itineraries with the monthly reports.

Question 5.—Does the Bee Instructor send in monthly reports to the Board of Management? Have these reports ever been placed before the Board of Management or any of its Committees?

Answer.—The Bee Instructor sends in monthly reports which are circulated to the members of the Bee Industry Committee and placed on the Agenda of this Committee. The Bee Instructor's monthly reports are dealt with in the same way by the Bee Industry Committee as the reports of other Instructors are dealt with by the Instructors' Committee.

Question 6.—Will the Board take steps to remove the Apiary from Hilroy?

Answer.—The Chairman of the Bee Industry Committee and the Secretary of the Society have already been instructed and authorised to remove the apiary from Hilroy. Suitable premises are being sought.

Question 7.—Will the Board of Management consider the question as to whether the time has not arrived when taking everything into consideration the Bee Industry should be handed over to the Government to be kept at Hope or any other place which the Government may decide on?

Answer 7.—This question can be effectively dealt with only by resolution.

Mr. McKay on asking if the questions had been submitted to the Bee Industry Committee, and receiving a reply in the negative, requested that they be sent to that Committee.

The Secretary was directed to circulate the questions to the Bee Industry Committee.

Notices of Motions.—

Mr. Cover gave notice that at the next meeting he would move:—

That no provision on the estimates being made for the appointment of a Supervisor for the eastern area, that the position be filled temporarily by promotion among the Instructors, and that the travelling provided the Secretary for that purpose be used to give increases to the Instructors who are not given increases; the balance, if any, to be used as the Board directs.

Resolutions.

Mr. McKay moved the following resolution:—

"Resolved that due to the fact that the Jamaica Agricultural Society has throug Board of Management declared itself in favour of co-operative marketing, enquiri made into the returns to members of the Citrus Industry by the Managers of this orga tion."

Mr. McKay spoke on the resolution which the Chairman said would second for the purpose of discussion, although he did not th that the Board had the power to make the enquiry.

Messrs. Walker and Phillips and the Director of Agriculture spoke on the resolution, after which discussion Mr. McKay with permission of the Board, withdrew the resolution.

Communications.—

(a) *Letter from Manchester Branches Associated re Half-Ye Meeting.*—This letter invited the Secretary to attend the mee fixed for the 8th June, and to aid with his views on matters listed consideration on the agenda.

Permission was granted the Secretary to attend the meeting if could so arrange.

(b) *Letter from Mr. R. E. Maxwell* who served a probationary pe of employment with the Society as an Assistant Instructor, was s mitted, asking for a written testimonial.

The Secretary was directed to send Mr. Maxwell a certificat service.

On the motion of the Chairman, seconded by Rev. Mr. Thomp the standing orders were suspended and the reports of the Committ which sat that morning were dealt with as follows:—

Bee Industry.—

The Secretary read the following report:—

5th June, 1935.

To the Board of Management:

Gentlemen,

Your Bee Industry Committee met this morning and recommend as follows:—

1. That the Society's apiary should be limited to 50 colonies.
2. That steps be taken by the Secretary to transfer the Society's apiary to the Ha Park Road on a site selected by him, and that the Board authorise a sum not excee £30 for the erection of buildings on the new site. They also recommend that Secretary and Chairman of the Bee Industry Committee should be empowered to dis of the surplus colonies in the present apiary.

(Sgd.) GLAISTER BAXTER,
Secretary of the Committee

The Chairman moved the adoption of the report.

Questions were asked as to the size and ownership of the plot, wh the Secretary advised was a quarter of an acre owned by Mr. A. D. Levy, the rental per month which the Secretary stated would be (Pound per month, the same amount that was being paid for the s at Hilroy, and as to whether the premises would be taken on lease or re the Secretary stated that the premises would be rented, with an arran ment for six months' notice on either side.

In answer to other questions the Secretary stated that the stren of the apiary was 100 colonies and about 25 nuclei, and it was inten to transfer the assistant who worked at the Hilroy Apiary to the n apiary site as soon as quarters, etc., were erected.

Mr. McKay said in view of the explanations that were made, and on condition that a suitable agreement be drawn up, including terms as to the removal of the buildings if the Society so desired, he would second the motion for the adoption of the report.

The Chairman assured the Board that a proper agreement would be made and the motion was carried.

The matter of the stocktaking at the present apiary was introduced and was referred to the Bee Industry Committee for a full report to the Board at their next meeting.

Mr. Williams left the meeting and Mr. Cawley asked to be excused for a short while and also left.

Rev. Mr. Thompson then took the chair.

Report from Instructors Committee.—The Secretary read the following:

5th June, 1935.

To the Board of Management:
Gentlemen,

Your Instructors' Committee met this morning and beg to recommend the following:

1. That the sum of 10s. 8d. for additional travelling for procuring budwood on the instructions of the Secretary be paid to Instructor Byles. They further recommend that Instructors be advised that no payment whatever will be allowed to them for collection of budwood.

2. That Instructor Shirley be given permission to do special work in connection with the cane farming industry.

3. That it be arranged with owners of holdings on which budding demonstrations have been carried out by Instructors that they advise the Instructors of the success or otherwise of the buds put on, and so save the Instructors extra travelling. That the owners of such holdings be supplied with cards for this purpose.

4. That the following applications for affiliation be granted.

Pear Tree River	(St. Thomas)—resuscitated.
Red Hills	(Clarendon) "
Giddy Hall	(St. Elizabeth)

(Sgd.) Glaister Batten,
Secretary of the Committee.

On the motion of Mr. Walker seconded by the Chairman the report was adopted.

Office.—

(a) *Report by the Secretary on travelling* done by him during the month of May was submitted and noted.

Diseases of Plants and Animals: Insect Pests.—

(a) *Panama Disease of Bananas—Report for April.*—The monthly report on the incidence of Panama Disease of Bananas was submitted and the Secretary stated that a copy had been forwarded to each member of the Board.

Speaking on the subject of Panama Disease, Mr. McKay said information which he had received, if correct, would indicate that the treatment of plants affected by Panama Disease was being neglected. Instead of a one-root system of treatment, it was no treatment at all. It was stated that instruction had been given to the people that they must report signs of the disease and the Inspectors of Plant Disease would supply them with oil to treat the plants, and after they had carried out the treatment they should make report to the Inspectors. This was not what was wanted, but eternal vigilance on the part of the Inspectors, and anyone found not reporting cases should be dealt with by Law and should be made to pay the full penalty. He had been told that the Inspectors of Plant Diseases had been directed to devote what time they had after they had performed their duties as Inspectors, to the establishment of the citrus industry.

He was glad the Director of Agriculture was present to hear his remarks and he knew that the Director being interested in every industry, would not give orders that would tend to increase the spread of the disease.

Mr. Walker supported Mr. McKay's suggestion that drastic measures should be taken when dealing with persons who did not report the occurrence of the disease.

The Director of Agriculture said he would be very grateful to know how such a false rumour occurred. It was entirely misleading as there was no relaxation at all with regard to the treatment of Panama Disease, as the Department realized more than ever the necessity of safeguarding the banana industry to the fullest extent. He further said he would be grateful to have any information that would help him to rectify any such existing position as outlined by Mr. McKay.

(b) *Letter from C.S.O. covering Order re Banana and Plantain Suckers.*—Letter No. 2278/35 of date 14th May, 1935, from the C.S.O., was submitted covering an Order by the Governor under Section 2 of the Protection from Disease (Plants) Law 1925 (Law 10 of 1925) prohibiting the removal of banana suckers or plantain suckers except under the conditions stated in the Order.

The Secretary was instructed to publish the Order in the Journal.

Mr. Cawley returned and resumed the chairmanship.

(c) *Letter from Director of Agriculture re Parasitic Wasp for control of scale insects.*—Letter from the Director of Agriculture was submitted covering notes on the subject of a parasitic wasp for the control of scale insects affecting citrus and other plants, which had been succesfully established by the Government Entomologist, and asking that wide publicity through the Instructors and the Journal be given the matter.

The Secretary was directed to thank the Director for the information and to publish the notes in the Journal.

Competitions and Shows.—

(a) *Report on Malvern Coffee Competition.*—Report on a Coffee Growing Competition carried out in the Malvern district and judged by Instructor Lynch, was submitted.

The Secretary was directed to circulate same to the Board.

(b) *Yam Growing Competition, Claverty Cottage Branch.*—Letter from the Claverty Cottage Branch was submitted requesting the Board to give a small amount for one of the four prizes that it was proposed to award in a Yam Growing Competition which the Branch was organizing.

The Secretary was directed to inform the Branch that the Board regretted that they could not grant the request.

(c) *Report on Juvenile Vegetable Competition, Bois Content.*—Letter from Instructor Martin, covering report on the Competition and requesting that a grant be sent to supplement the prize funds was submitted.

After a short discussion the Secretary was instructed to advise the Instructor that the request would not be granted.

(d) *Mt. James Juvenile Show—Letter from Secretary.*—Application was submitted from the Mt. James Branch, asking for a grant towards prize money in connection with a Juvenile Agricultural Show held on the 25th April, 1935.

The Board authorised a grant of ten shillings and sixpence.

(e) *Letter from Leicesterfield School re School Fair.*—Letter was submitted from the teacher of the Leicesterfield School advising that a School Fair was being organized to take place on the 23rd July next; [illegible] would include Vegetables grown by children. He further

asked that the Society offer half a dozen Giant Plantain suckers and 25 lbs. Peanut seeds, as prizes for Agricultural Products and Small Stock.

After discussion it was decided that a grant of half a guinea be made

Authorised Persons.—

(a) *Letter from Inspector General re remuneration to injured Authorised Person.*—Letter from the Inspector General dated 1st May, 1935, was submitted, stating that with regard to the representations made by the Lucky Hill Branch in the matter of an Authorised Person who sustained injuries during the execution of his duty, there were no funds at the disposal of his department for rewards or otherwise to Authorised Persons, and suggesting that the matter be referred to the Government should the Board consider such a course desirable.

The Secretary was directed to thank the Inspector General for his letter and also to refer the matter to the Government.

Resolutions from Branches.—

(a) *Mid-Clarendon re Water Board.*—This resolution stated that the Branch welcomed the information that the Government had accepted the principle of an Island Water Board and hoped the formation of such a Board would be accomplished before the expiration of the session of the Legislative Council then in progress and that the matter of irrigation for that section of the parish would be one of the first undertakings of the Water Board.

The Secretary was directed to forward the resolution to the Government.

(b) *Rock Hall (Portland) re road.*—This resolution asked that steps be taken to have the driving road leading into Rock Hall extended.

The Secretary was directed to forward same to the Parochial Board of Portland.

Mr. Cover suggested that in matters of the kind Branches should be advised to send a deputation to interview the Parochial Boards as he thought such a course might be more effective.

(c) *O'Meally re road.*—This resolution asked that the Government be approached with a request to have a main road constructed from Mt. Industry to Edward Piece.

The Secretary was instructed to forward the resolution to the Colonial Secretary.

New Members.—

On the motion of the Chairman, seconded by Mr. Cover, the following were elected members of the Society:—

Haytian American Development Corporation, Cape Haitien, Haiti.
E. S. Perrin, Long Mountain Road, Windward Road.
H. M. Croskery, "Hazelymph House," Cambridge.
C. R. Harrison, Cambridge Hill, Bull Bay.
H. S. Campbell, c/o Lascelles deMercado & Co., Ltd., Kingston.
D. T. Wint, 28 Lyndhurst Road, Cross Roads.
J. M. Cohen, 1a Potters View, Rae Town, Kingston.
Messrs. Central Aguirre Sugar Coy. (Santa Isabel Division), Central Corteda Santa Isabel, Puerto Rico.
W. H. Charlton, Lance Wood Valley, May Pen.
Leigh D. Phillips, Williamsfield P.O.

Other Business.—

(a) *Arrangements for Half-Yearly Meeting.*—The Secretary stated that the Half-Yearly General Meeting was scheduled to be held at the Collegiate Hall on Thursday, 25th July, at 10 a.m.

This was noted.

(b) *Summer Course at Hope.*—The Secretary stated that the Director of Agriculture had advised him that another Summer Course or "Open Week" would be carried through during the fourth week in July, the same week on the Thursday of which the General Meeting would be held. He (the Secretary) was requesting the Board to authorise him him to instruct the Instructors to attend the Course.

On ascertaining that an amount was provided on the estimates to defray the cost of the Instructors attending, the Board approved.

(c) *Leave: Application from Hon. R. Ehrenstein.*—Application from Mr. Ehrenstein for six months leave as from the 31st. May was submitted and the leave granted.

(d) *Resolutions from St. Ann Branches Associated re- (i) Maternity Nurses.*—This resolution asked that the Parochiall Board be urged to consider employing trained maternity nurses to be stationed at outlying districts, say 10 miles from each District Medical Officer.

The Secretary was directed to forward the resolution to the St. Ann Parochial Board.

(ii) *Branch Accounts.*—This resolution requested that the Parent Society provide specimen order and receipt books suitable for use in Branches to be sold at a cost not exceeding 10% in exc ss of the cost of production.

The Secretary was directed to go thoroughly into the matter and report if it was practicable.

(iii) *Citrus Industry.*—This resolution requested that the Government be asked to establish citrus nurseries in Eastern and Western St. Ann so that budded plants could be supplied to persons desirous of establishing citrus cultivations.

The Director of Agriculture stated that in regard to this matter it was found that centralised operations made for economy and it would not be practicable to establish the nurseries at the present time as requested by the resolution.

Mr. Cover said that if the Director of Agriculture would at some later date consider the matter, he would be prepared to give a piece of land for the purpose.

The Director of Agriculture thanked Mr. Cover for his offer and said he would bear it in mind.

(iv) *Dairy Industry in St. Ann.*—This resolution asked that representation be made to the Director of Agriculture to aid in placing at the disposal of the people of St. Ann at a nominal charge such dairy bulls and rams that have been proven suitable for the climate and conditions of the parish and that the penkeepers of the parish be asked to give free pasturage and/or housing for such animals.

Mr. Cover pointed out that the Branch could apply to the Society for a subsidy for a ram and stated that with regard to the dairy cattle he would heartily support that and should be referred to the Director of Agriculture for sympathetic consideration.

The Secretary was directed to write to the Branch in the above terms.

(e) *Resolution from Aberdeen Branch* requested that representation be made to the Central Government to have the work on the main road from Windsor to Aberdeen completed.

The Secretary was directed to forward same to the Government.

(f) *Letter from St. Elizabeth Branches Associated re Bull from Hope.*—The letter asked that the Director of Agriculture be asked to lend another bull to serve the north-western section of St. Elizabeth and the north-eastern section of Westmoreland.

The Board decided that the request was unlikely to be favourably considered in view of the needs of other parishes not as well served as St. Elizabeth.

(g) *Juvenile Vegetable Competition at Eccleston.*—Letter from the Juvenile Branch at Eccleston was submitted inviting the Secretary to attend their Annual Exhibition and Fair on the 17th June and asking the Board for a grant in aid of their prize fund.

The Board authorised a grant of half a guinea.

Mr. Sangster came in.

(h) *Jubilee Memorial Fund.*—The Secretary informed the Board that he had circularised the staff of the Society, requesting them to make a joint contribution to the Memorial Fund launched by Lady Denham, and submitted a draft of a circular which he proposed to submit to the Branch Societies.

The Board endorsed the action of the Secretary.

(i) *Resolution from Beekeepers' meeting.*—The Secretary read the following resolution:—

"That this public meeting of Beekeepers, held at the office of the Jamaica Agricultural Society this fourth day of June, 1935, record their concern at the inadequacy of the Law for the control of bee diseases and consequent thereto the ineffectiveness of Government action for control of Foul Brood Disease of Bees, and request prompt action by Government to right this state of affairs; and further, strongly recommend to Government that it should be made illegal to keep bees in any other than the standard hives equipped with frames on account of the impracticability of examining and observing such bees as a measure of disease prevention and control; and that the Board of Management of the Jamaica Agricultural Society be requested to forward this resolution to Government."

The Secretary was instructed to forward same to the Government.

(j) *Letter from Major Moxsy re May Pen Show.*—Letter from Major Moxsy was presented, disputing the charges made against the Show for Equipment and stating that the Committee paid the Instructors expenses under protest.

The Director of Agriculture left the meeting.

In the discussion which followed it was disclosed that although a letter had not been sent to the Show Committee advising of the charges beforehand, it was a well known fact that Show equipment was invariably hired to Show Committees and not loaned free of charge.

Taking into account that the Show had been successful financially, the Secretary was directed to endeavour to collect the amount involved.

(k) *Resolution from Springfield Branch (St. James) re roads.*—This resolution asked that the Government be requested to take over from the Parochial Board, Roads No. 13 and 14 for the purpose of improving them and connecting them with the Mt. Horeb—Cambridge Road.

The Secretary was instructed to forward the resolution to the Government.

Mr. Walker brought up the matter of the report by the Microbiologist on marketing investigations made by him while in England, copy of which he had received from the office of the Society. He noticed also that the report appeared in the Press. He had had information from an eminent gentleman which conflicted with the statement made by Mr. Smith in the report on the subject of the Cavendish bananas. He felt that greater care and attention should have been given the trial shipments from this Island before they were officially reported on. Regarding the Highgate bananas he had seen letters from influential people recommending them on the English and other

markets and he was sorry that Mr. Smith had not thoroughly acquainted himself with people who handled them. He would congratulate Mr. Smith on the other sections of his report but in regard to the Cavendish and other bananas he thought the information he had was inadequate.

The Chairman said he did not think the report should have been published. He had seen several shipments made by Government and a great deal of care had been taken in the handling except that the fruit had been sent some as full fruit and some as three-quarter. Mr. Walker was entirely misled as to the condition of shipments sent forward.

Mr. Walker said in fairness to Mr. Smith he would say that much care had been taken with the last shipment regarding the right kind of fruit. His main point however was that the report should not have been made until Mr. Smith had completed his investigations.

The meeting then adjourned to Wednesday, 3rd July, 1935, at 11.30 a.m.

BOARD OF MANAGEMENT.

The regular monthly meeting of the Board of Management of the Jamaica Agricultural Society was held at the office of the Society, 11 North Parade, Kingston, on Wednesday the 3rd July, 1935, at 11.30 a.m. There were present: Rev. W. J. Thompson, in the chair, and Hon. G. Seymour Seymour, Vice Presidents, Hon. A. C. Barnes, Director of Agriculture (*ex officio*), Hon. H. A. L. Simpson, O.B.E., Messrs. Sidney Barton, C. O. Cover, H. E. Lewis, U. Theo. McKay, D. D. Phillips, P. W. Sangster, W. Harper Watson, W. H. W. Westmorland and T. R. Williams; Mr. P. St. L. Bacquie, Supervisor of Instructors and the Secretary, Glaister Baxter. Mr. W. L. Barnett, M.A., B.Sc., F.I.C., Deputy Island Chemist, also attended the meeting.

Apologies for Absence.—

The Chairman stated that Mr. Cawley, the First Vice-President was unable to be present owing to an important appointment, but he would attend later.

Confirmation of Minutes of the previous Meeting.—

Copy of the minutes having been sent to each member of the Board they were taken as read.

An amendment was made and on the motion of Mr. Phillips seconded by the Chairman the minutes were confirmed.

Matters arising out of the previous Minutes.—

(a) *Statement by Secretary.*—The Secretary stated that all correspondence consequent on the deliberations of the Board at their last meeting had been dealt with.

(b) *Terms of Employment—Further letters from Instructors.*—The Secretary read letters from Messrs. Hanson, Martin, Hastings, McLaren, Coote and Byles stating their agreement with the current terms of employment formulated by the Board of Management. The Secretary also presented letter from Instructor N. M. Thompson stating that

he did not understand the letter in which it was stated that the Board did not appreciate his attitude on the matter of the terms of employment as disclosed in former correspondence.

The Secretary stated that he had had no reply from Instructor Coke on the subject although communications sent to the other Instructors had also been forwarded to this Instructor.

After discussion it was agreed that formal contracts of employment should be issued by the Society for the signatures of its employees, and the Secretary was directed to request Instructors Thompson and Coke to either signify their agreement to the current terms of employment as laid down by the Board or that they be given three months notice to terminate their services with the Society.

(c) *Stock at Hylroy—Report from Bee Industry Committee.*—The Secretary stated that since the last meeting of the Board, the Bee Industry Committee found it inconvenient to meet and therefore the inquiry was still pending.

Statement of Accounts.—

(a) *Statement for May.*—The Secretary stated that the statement of accounts for May appeared in the minutes of the last meeting.

(b) Statement for June was submitted as follows:—

STATEMENT OF ACCOUNTS FOR JUNE, 1935.

Receipts.	Estimates.			Total.		
	£	s.	d.	£	s.	d.
To Subscriptions	175	0	0	38	10	5
Affiliation and Journal Fees ..	175	0	0	100	13	6
Advertisements in Journal ..	350	0	0	27	1	0
Miscellaneous	10	0	0	9	8	5
Bee Industry Sales	30	0	0	6	4	3
Sales Dept. Profits, 1935-36 ..	400	0	0	..		
Government Grant	9,500	0	0	2,375	0	0
Grant for Beekeeping Industry ..	500	0	0	83	6	8
Appropriation from Sales Dept. Surplus	657	5	0			
	£11,797	5	0	£2,640	4	3
Balance for 31st March, 1935 ..	..			781	7	7
Agricultural Shows, Deposits, etc.	..			19	1	0
Citrus Competition Shilling Fund ..	..			15	18	6
Jubilee Memorial Appeal Fund ..	..			3	16	0
Seeds Trading Account	..			941	11	3
	1,213	15	4	4,401	18	7
Less Expenditure per contra	..			3,971	6	7
				£430	12	0
Cash in hand	49	10	8			
Cash at Royal Bank of Canada	381	2	4			
	430	13	0			
Less Overdraft at Barclay's Bank ..	0	1	0	£430	12	0

Expenditure.	Estimates. £	s.	d.	Total. £	s.	d.
By Personal Emoluments:—						
Secretary, and Office Staff ..	2,117	5	0	520	11	0
Instructors and Supervisor ..	7,671	0	0	1,916	14	6
Instructors' Course at Hope ..	125	0	0	..		
Instructors' Tools and Contingencies ..	75	0	0	39	4	5
Secretary's Office and Special Travelling	100	0	0	39	14	5
Printing and Stationery	100	0	0	38	6	7
Printing and Issuing Journals and Reports	800	0	0	108	4	10
Rent and Rates	58	0	0	13	11	0
Rent of Telephones	27	0	0	6	12	0
Postages and Telegrams	10	0	0	3	12	6
Office Equipment, Repairs etc. ..	15	0	0	0	10	9
Incidentals	50	0	0	17	6	7
Auditor's Fees	25	0	0	..		
Library Books	10	0	0	2	18	10
Show Equipment, Repairs, etc. ..	10	0	0	4	13	1
Experiments, Bombay Mango Industry, etc.	100	0	0	14	18	9
New Office Equipment	40	0	0	5	1	0
	£11,333	5	0	£2,732	0	3
Beekeeping Industry	500	0	0	139	2	9
	£11,833	5	0			
Agricultural Shows, Printing, etc. ..	..			22	0	0
Plant Disease Control	..			1	4	8
Local Competitions	..			3	16	6
Travelling Advances to Instructors ..	..			322	10	0
Seeds Trading Account	..			714	15	5
New Show Equipment	..			35	17	0
				£3,971	6	7

(Sgd.) GLAISTER BAXTER, Secretary and Treasurer. (Sgd.) DONALD McDONALD, Accountant.

(c) *Annual Statement*.—The Secretary submitted the audited Annual Statement of Accounts and read the following letter.:—

14 Duke St., Kingston,
July 1st, 1935.

To the Members of the Jamaica Agricultural Society.

In continuation of the Certificate on the Balance Sheet, I beg to draw attention to the composition of some of the important accounts:—

Income and Expenditure Account.—The expenditure of the Official Department has exceeded the income by £867 2s. 2d. which deficit has been found by a transfer from the Surplus Revenue Account.

The Seeds Trading Capital Account has also been increased by transferring from the same account the sum of £250, increasing it as shown on the Balance Sheet, £750.

The Seeds Surplus Revenue Account.—At the close of the last financial year the balance stood at

				£	s.	d.
balance stood at				£1,910	6	11
to which was added the 1935 net profit of				769	19	4
making a total of				£2,680	6	3
from which have been deducted the following transfers:—						
Seeds Capital Account .. .	£250	0	0			
Deficit Income and Expenditure .	867	2	2	1,117	2	2
leaving a balance of				£1,563	4	1

which appears on the Balance Sheet.

Depreciation.—In the Official Department 10% has been written off Furniture and Fixtures and 20% off Show Equipment and Materials, also 10% from Library Books, making a total of £59 0s. 6d.

In the Seeds Department, the Furniture and Fixtures have been reduced 10% on the total=£12 9s. 3d.

Bad Debts to the extent of £8 9s. 8d. have been written off the Reserve, leaving the balance shown on the Balance Sheet at £145 7s. 9d.

Stock as on previous occasions has been taken by an independent Stock Taker and certified by the Secretary.

Subject to the foregoing remarks, I am of opinion that the Balance Sheet is properly drawn up so as to exhibit a correct view of the Society's affairs according to the best of my information and the explanations given me and shown by the books of the Society.

(Sgd.) R. PARKINSON,
Certified Accountant.
Auditor.

Kingston, Jamaica,
July, 1st, 1935.

Discussion on the matter of the writing off of bad debts and trade in connection with seed potatoes took place and were referred to the Office Committee.

The Annual Statement of Accounts was adopted for publication in the Secretary's Report for presentation at the next Half-Yearly General meeting.

The Chairman suggested that the item lower down on the Agenda dealing with the appointment of an auditor be now dealt with and this was agreed to.

Appointment of Auditor—Letter from Mr. Parkinson.—

Letter from Mr. R. Parkinson was read stating that since he commenced the audit of the Society's accounts in 1924, he had pointed out that it was necessary for the audit to be performed during the course of the year and that had been done. The books were at that time in an imperfect state and had since been brought up to a state of usefulness. The Seeds Department had grown and the accounting work involved on the staff and himself was now more than four times its former volume. The profits of the Seeds Department had increased considerably. As the work of auditing involved at the present day was more than four times that of ten years ago he submitted that it was worth at least One Hundred Guineas and asked that he be paid that sum for the year ended 31st March, 1935.

The Secretary was instructed to advise Mr. Parkinson that no provision was made on the estimates for additional expenditure in this direction and his request could not be granted.

Mr. Cover suggested that some system might be devised whereby reliable check of the numerous daily sales slips referred to by the Auditor could be carried through and so eliminate some of the detail work done by him.

This was agreed to and the matter referred to the Office Committee.

Mr. Cover congratulated the staff on the work that had been accomplished showing the satisfactory results referred to by the Auditor, and suggested that some consideration might be made for a bonus.

A motion that the position of Auditor be advertised moved by Mr. H. E. Lewis was put to the vote and lost.

On the motion of the Chairman, seconded by Mr. McDaniel, it was decided to appoint Mr. R. Parkinson Auditor for one year on the same terms as those of the previous year.

On the motion of Mr. Williams, seconded by Mr. Barton, it was decided to add Mr. Cover to the personnel of the Office Committee.

Questions.—

Mr. Williams asked if there was any reason why the Board could not meet at three o'clock in the afternoon instead of in the morning.

The Secretary read the Bye-Law of the Board of Management which stated that ordinary meetings of the Board shall be held on the first Wednesday of each month at 11.30 a.m. or on any other date and time arrived at by a decision of the Board.

Mr. Cover asked if the question of pimento disease had been referred to the Department of Agriculture and if any reply had been received.

The Secretary stated that he had written to the Director of Agriculture on the subject, but had not yet received a reply.

Mr. McKay asked if anything had been done in regard to the utilizing of the grant made by the Government for the reconditioning of the adjoining premises.

The Secretary said the Building Committee's report on the subject would be placed before the Board that day.

Half-Yearly General Meeting.—

(a) *Minutes of last meeting and* (b) *Secretary's Report* were laid on the table.

(c) *Interim Agenda:*—The draft agenda including resolutions that had at that date reached the office was considered and amended.

Resolutions.—

(a) *Mr. Cover re Supervisor for Eastern Section.*—Mr. Cover moved the following:—

That no provision on the estimates being made for the appointment of a Supervisor for the eastern area, that the position be filled temporarily by promotion among the Instructors, and that the travelling provided the Secretary for that purpose be used to give increases to the Instructors who are not given increases; the balance, if any, be used as the Board directs.

Speaking on the resolution Mr. Cover said that at present the Supervision was done by one Supervisor. Assuming that the duties of the Supervisor was not only to check up on the Instructors but to go into the fields with them and correct any wrongs that may have been committed and discuss matters regarding demonstrations, etc., he would suggest that it was impracticable for one Supervisor to carry out the work in the whole Island efficiently. He had to consult with twenty Instructors and deal with some three hundred Branch Societies. The work of an Instructor beginning at any hour of the day and continuing into any hour of the night could not be compared with the work of any other department. He thought it necessary for a Supervisor to get in touch with the various Branches and stimulate them to usefulness. He suggested that if it was decided to appoint a Supervisor such a vacancy should be filled by promotion of one of the Instructors. It would be a stimulus to Instructors to be given the opportunity of rising to the position of Supervisor.

With regard to finance he suggested that the officer appointed should be given an amount to be decided upon. If an Instructor was promoted a sum in addition to his present salary would be given to him and arrangements made for the carrying on of the work in his district. He commended the resolution to their consideration for fair play and efficiency.

Mr. Barton seconded the resolution and stated that he felt that was more than one man could do to overtake the enormous amount of work involved.

Mr. McKay suggested that the matter be referred to a Committee but Mr. Cover said he did not see the necessity for such action.

Mr. McKay said he did not look upon the Supervisor as a sort of detective. He thought that any man getting £200 or £300 per annum who was not sufficiently strong to get through his work without being watched should be dismissed. The Supervisor should be at hand to immediately attend in a district should there be any trouble. He should see the work done in the districts and if he was not satis

that sufficient work was efficiently done then he should report to the Board and the Instructor reported on should be dismissed. He thought that the present arrangement for the work being done by one Supervisor should be carried on for some time longer and reported on.

The meeting adjourned for luncheon.

On the resumption there were present—Mr. T. J. Cawley, in the chair, the Director of Agriculture, Messrs. Cover, Williams, McKay, McDaniel and Phillips, Mr. Bacquie, Supervisor, and the Secretary. During the course of the meeting Messrs. Thompson, Walker, Barton, Sangster and Watson attended.

Mr. McKay requested that Mr. Cover state how he proposed to finance the proposal.

Messrs. Lewis, Thompson, Walker and Phillips spoke supporting Mr. Cover's resolution.

The Director of Agriculture asked if the services of the Supervisor during the three months had been satisfactory in regard to the supervision of the eastern area.

The Secretary said that it was for the members of the Board to say whether they thought the supervision had been close enough or not.

The Director of Agriculture said that if they had inefficient field workers no supervision could set that right. He asked the question because he was anxious that they should do the right thing.

Mr. Cover spoke closing the discussion and submitted that his idea in regard to the matter of finances was that if the Senior Instructor, Mr. Hanson was promoted, £50 should be allocated from the amount set aside for the travelling of the Secretary while supervising in the eastern section, and added to the Instructor's salary. Mr. Hanson could continue to do a limited portion of the work in his present section, and Mr. Henderson could be given an additional sum per annum and his district extended to include the remaining portion of Mr. Hanson's district.

The resolution was put to the vote and carried, Messrs. Thompson, Walker, Phillips, Cover, Williams, Lewis, Barton and Watson voting in favour of it, and Messrs. McKay, Sangster, McDaniel, Westmorland and the Chairman voting against it.

Mr. Cover asked if immediate effect would be given to the resolution.

The Chairman ruled that notice of a resolution regarding personnel to be discussed at the next meeting would have to be given.

Mr. Cover asked that his submissions should be incorporated in the minutes.

(b) *Mr. McKay re Pensions for Instructors.*—Mr. McKay moved the following:—

That Whereas: Agricultural Instructors do most valuable work in the Island, inasmuch as they increase the wealth of the Colony: Whereas no provision is made for these men in the shape of pensions or compassionate allowance on their retirement:—

Be it resolved that this Board of Management make very strong representations to the Authorities that Agricultural Instructors should be placed on the same basis as schoolmasters in the matter of pensions, and that the Government be urged to put the system into force as quickly as possible.

Speaking on the resolution Mr. McKay said that they had been considering the matter of pensions for a long time but had not got very far. He felt that the Instructors were doing just as valuable work as school teachers and at Branch meetings they taught some amount of citizenship. The Instructors were of great benefit to the Government and he did not see why they should not shoulder the responsibility of the amount which would be involved which was not a large amount.

The teachers had had to put up a strong case before their claims were recognized and the Board of Management could put forward the case of the Instructors. He thought the Government had tacitly admitted the contention that these men should get pension by passing special laws to give some of the officers that worked for the Society pensions.

The Chairman stated that the matter of pensions had been put forcibly before the Government and a Provident Scheme had been worked out and forwarded, but no decision had yet been arrived at.

Mr. Thompson asked if in passing such a resolution the Board would not be working in conflict with the scheme before the Government.

It was pointed out that there was a letter on the subject on the Agenda and this item was taken.

Letter from C.S.O. re Provident Scheme was read as follows:

No. 2992/32. 27th June, 1935.

"With reference to paragraph 2 of your letter No. 83 of the 21st March, 1935, I have the honour to transmit herewith, for the consideration of your Society, copies of Ordinances, etc., relative to Provident Funds in Kenya, Nigeria, Tanganyika Trinidad and the Kenya-Uganda Railway and the Tanganyika Territory Railways, and also a copy of a report of the Provident Fund Committee dated the 5th June, 1930, which has been received from the Secretary of State for the Colonies.

(Sgd.) A. R. Dignum,
for Acting Colonial Secretary.

After discussion it was decided to refer Mr. McKay's resolution to the Committee dealing with the Provident Scheme and the Secretary was directed to call a meeting of that Committee before the next Half-Yearly General meeting.

Communications.—

(a) *Letter from C.S.O. re Greetings to Their Majesties the King and Queen.*—The following letter was read:—

Nos. 3410/35. 6th June, 1935.

"I have the honour to refer to your letter, C.S.O., No. 95 of the 22nd May, 1935, and to inform you that a copy of the Resolution unanimously passed by the Board of Management of your Society offering the Loyal greetings of the Agricultural population of the Colony to Their Majesties King George V and Queen Mary, on the occasion of their Silver Jubilee has been transmitted to the Secretary of State for the Colonies.

(Sgd.) A. R. Dignum,
for Acting Colonial Seretary.

The letter was noted.

(b) *Letter from Director of Agriculture re Mr. J.M. McEwen's services.*—The Secretary read the following letter:—

C. 652. Hope, Kingston P.O.,
24th June, 1935.

"I have the honour to refer to the arrangements whereby the part-time services of Mr. J. M. McEwen, Agricultural Officer, were made available to you for a period of six months, in the first instance, and to inform you that owing to the work being carried on and planned in connection with the Low Temperature and Marketing Experiment Station, West End, Kingston, it is now desirable to transfer Mr. McEwen to that Branch of this Department. He will carry on from there, his duties in connection with the inspection of imported plants, fruits, vegetables and agricultural machinery, the remainder of his time being devoted to assisting with various investigations to be conducted at the Station.

2. I had already mentioned to you the possible necessity of transferring Mr. McEwen entirely to the Agricultural Department, and I feel that now you, as Secretary of the Society, have been relieved of the supervisory work in the eastern districts of the Island, you may the better be able to spare Mr. McEwen, though I much regret the necessity for taking him away. I should be glad if Mr. McEwen could be relieved of his duties with you as soon as possible.

(Sgd.) A. C. Barnes,
Director of Agriculture.

The Secretary stated that he had written to the Director of Agriculture expressing regret that it was found necessary to transfer Mr. McEwen entirely to the Department of Agriculture and expressing appreciation of the assistance Mr. McEwen had given him.

On the suggestion of Mr. Thompson the Board decided that the Director be informed that though the Board regretted that it was necessary to transfer Mr. McEwen entirely to the Department of Agriculture, they appreciated the services that had been given by that officer and wished to place on record their appreciation of the co-operation of the Department of Agriculture with the Society.

The Director of Agriculture said they should look at it from the point of service to the agricultural public. He felt sure that the Society would be the first to give way if it was realised that such services were being properly rendered. The reason for removing the officer was principally that the new Low Temperature Station was embarking upon vegetable marketing trials and this work was directly in the interests of agriculturists, particularly the smaller ones who were represented in the Society, and although Mr. McEwen would not be under the direct control of the Board of Management and the Secretary of the Society his services would be more than ever placed at the disposal of the very people that the Society is trying to serve. It was necessary to put the officers in the positions most favourable to obtain their best services. If the matter was looked at from that standpoint, it would be realised that the services of the particular officer would be more valuable to the agricultural public than they were in his present position.

(c) *Letter from Mr. Segre re Instructor Kelly.*—The Secretary stated that this matter had been considered by the Instructors Committee at their meeting that morning and a recommendation was incorporated in the report to be submitted.

(b) *Letter from C.S.O. re proposed expenditure on 10 North Parade.* The following letter was submitted:—

Nos. 7427/34. 25th June, 1935.

"With reference to the remarks made by Mr. U. Theo. McKay at the half-yearly meeting of the Associated Branches in Manchester, of the Jamaica Agricultural Society, as reported in the "Daily Gleaner" of the 10th June, 1935, with regard to the Government's alleged refusal to provide certain amounts in connection with the estimates of your Society for 1935-36, which comments the Governor does not regard as correct, I am directed to enquire how your Society proposes to expend the additional sum provided on the Estimates and what are your suggestions with regard to expenditure on the newly acquired building."

(Sgd.) B. H. Easter,
Acting Colonial Secretary.

Mr. Cover remarked that the "Gleaner" was not an official organ of the Society.

At the request of the Chairman the Secretary read the following report from the Building Committee which had dealt with the question at a recent meeting:—

July 3rd, 1935.

To the Board of Management:

Gentlemen:

Your Building Committee, consisting of the Director of Agriculture, the First Vice-President and the Secretary, met on Friday, 28th June, and considered submissions from the Secretary as to the necessary alterations to be made on the premises 10, 11 and 12 North Parade, and storage accommodation to be erected.

Rough plans are herewith submitted.

Your Committee recommend that the alterations and storage as outlined in these plans be accepted by the Board and that the Secretary be instructed to get estimates of costs from the Public Works Department.

(Sgd.) Glaister Baxter,
Secretary.

The Director of Agriculture moved that the report be adopted and the Secretary authorised to communicate with the Colonial Secretary with the request that the Director of Public Works be asked to furnish details and plans to give effect to the report.

This was seconded by the Chairman and carried.

In reply to a question asked by Mr. Sangster the Secretary stated that the amount asked for as a grant to the Society was £11,250 and the amount voted was £10,500.

The Director of Agriculture said he did not know how far it was proposed to pursue the subject but it had been reported that a statement was made to the effect that the Government was not in sympathy with the proposals to provide amounts for fertilizer trials and certain small experiments, when the Governor really supported that. He thought it was due to the Board that the matter should be clarified. He knew that the Governor had informed the deputation that he was in favour of such projects but he could not give more than a certain amount for the subvention, and it was thought that the proposals could be carried into effect by an adjustment of expenditure from the funds made available to the Society.

The Chairman said he was of opinion that the work of the Society could be of much more value to the Island if they were not so handicapped financially. Although everyone must share in the general depression he desired that the Government should realise that agricultural progress was the only means by which help and relief could be brought to the people. He was in sympathy with what Mr. McKay had said.

Industries.—

(a) *Beekeeping: (i) Letter from Messrs. D. J. Scott & Co., Ltd., London, re Honey.*—Letter dated 22nd May, 1935, was presented stating that that firm was in communication with the British Bee-keepers Association who were making every effort to get the Ministry of Health to introduce the necessary legislation in regard to the sale of a Honey substitute which was affecting the trade in all varieties of home-produced and Empire Honey.

The letter was noted.

(ii) *Letter from C.S.O. re Foul Brood Disease.*—The Secretary read the following letter:—

Nos. 6735/34. 18th June, 1935.

"With reference to the recent outbreak of foul brood disease of bees, I am directed to inform you that the Director of Agriculture reports that in order to secure the eradication of the disease it is necessary that periodical inspection of apiaries should be maintained in Kingston and St. Andrew for at least 12 months and that suspicious cases occurring in country parishes should be investigated promptly.

"The Governor considers that this work should be carried out as a charge against Item 39 "Grant-in-aid-Bee Industry," of Head XXXVIII of the Estimates for the current financial year, and His Excellency will be glad if your Society will issue the necessary instructions for the work to be carried out by its staff.

"If your Society are unable to undertake this duty, the work should then be undertaken by the Agricultural Department and paid for out of the vote referred to above."

(Sgd.) B. H. Easter,
Acting Colonial Secretary.

Mr. Cover moved that the Bee Instructor be directed to make the necessary inspection.

This was seconded by Mr. Phillips.

Mr. McKay suggested that the matter be referred to the Bee Industry Committee for a report.

The Chairman pointed out that under the law any person who is to be at liberty to make an inspection of any apiary must have that power conferred on him by the Governor. Their present Bee Instructor was no longer such an officer recognised under the law, as his license had been recently withdrawn by the Government. He thought it would be an unwise step to request the Governor to give a license to a man from whom such a license had just been removed on the recommendation of the head of a Department.

Mr. Williams suggested that the Bee Instructor's salary be reduced to the extent of £150 so that funds would be available for the required work to be carried on otherwise.

Further discussion took place during which the Director of Agriculture pointed out that inspection was being carried on by his Department and such service was still available without charge against the grant. In some instances however, it was necessary to employ additional help when additional expenditure was incurred.

On the motion of Mr. Sangster seconded by Mr. Phillips it was finally decided that the Director of Agriculture be requested to carry on the inspection for the next month incurring the necessary expenses, and that the matter be referred to the Bee Industry Committee during this month and that that Committee make a report to the Board at their next meeting.

Re Hon. A. C. Barnes.—Mr. Thompson asked for the suspension of the standing orders and stated that he had just been informed that the Hon. Director of Agriculture would not be at the next meeting of the Board as he was going abroad on leave of absence. He thought it would be a matter of courtesy for them to place on record their wish that he would have a pleasant voyage to England, and a beneficial trip in the Motherland and return much benefitted by his holiday.

This was seconded by Mr. Phillips and supported by the Chairman, Mr. Walker and Mr. McKay, who added that he desired to associate Mrs. Barnes in the good wishes expressed.

This was unanimously carried.

Mr. Barnes replied thanking the Board for their kind expressions.

Rev. W. J. Thompson and Mr. Phillips retired from the meeting.

New Members.

On the motion of Mr. McKay seconded by Mr. Watson the following were elected members of the Society:—

J. L. Campbell, c/o The Shell Co., (W.I.) Ltd., Kingston.
P. G. Duff, "Roseneath," Halfway Tree P.O.
Jamaica Antonsanti Well Co., P.O. Box 367, Kingston.
T. A. Roxburgh, Cedar Valley, Sligoville.
G. L. Dun, 7 Winchester Road, Halfway Tree.
W. H. DeLisser, Sandy Bay.
A. W. Campbell, "Tyre Lodge." Free Town, Old Harbour.
O. A. Thompson, c/o Messrs. Edwin Charley, Kingston.
Samuel A. Gidden, Mt. Diablo, Linstead P.O.
L. D. Thompson, 5 Homestead Road, Windward Road P.O.
N. W. Crawford, 13 Homestead Road, Windward Road P.O.
Rev. J. H. Daley, Cavaliers P.O.
A. B. Isaacs, The Wherry Wharf, 102 Water Lane, Kingston.
F. H. Touzalin, Silver Spring, Little London.
Mrs. Emily Pitcher, 59 Halfway Tree Road, Halfway Tree P.O.
Mark E. Warren, 43 Windward Road, Kingston P.O.
Phillip F. Lightbody, M.L.C., Montego Bay.

Charles A. Reid, M.L.C., Christiana.
J. C. Russell, c/o Jamaica Banana Producers Association, Kgn.
C. H. Coote, Esq., Windward Road, P.O.
David A. Turner, 23 Leonard Road, Windward Road.
Harold Simpson, Content, Retreat P.O.
Dr. Stephen Lockett, Hope, Kingston P.O.
J. B. Rodriques, Bushy Park.
W. E. Pettinger, Bowanville, Canada.

Reports from Committees.—

(a) *Report from Deputation re Unlicensed buyers of Bananas.*—The Secretary read the following:—

28th June, 1935.

Board of Management:

Gentlemen:

Your deputation appointed to confer with the Inspector General of Police on the question of unlicensed buyers of bananas, did so on the evening of the 5th June, 1935.

The deputation consisted of Messrs. T. J. Cawley, S. M. Walker, U. Theo. McKay, and T. P. V. McDaniel attended by the Secretary, and were received by the Inspector General with Inspector Orrett in attendance.

The subject was freely and fully discussed and it was decided that the Inspector General would submit suggestions by letter for amending the Agricultural Produce Law in accordance with the views agreed on by the Inspector General and the deputation. This letter is now submitted and your deputation recommends for adoption the suggestions contained therein.

Yours faithfully,
(Sgd.) Glaister Baxter,
Secretary.

Copy.
No. 743/J.A.S. 2917/35.

Head Quarters, Jamaica Constabulary,
11th June, 1935.

"With reference to my meeting with your Deputation on the 5th June, 1935, and our discussion on the subject, I set out below my recollection of the agreement that we came to, and also draft amendments to Law 19 of 1926:

Agreement.

(1) That all vehicles engaged in haulage or carriage of bananas should be licensed except those which are bona fide the property of the grower, and engaged in the transport of fruit from his property.

(2) That the driver, operator or person in charge of vehicles so licensed shall keep a book in which he shall record at the time of purchase similar particulars as are required of every Agricultural Produce Dealer under Section 8, Sub-Section (i) of the Agricultural Produce Law, and such person shall be liable to the same penalties for non-compliance, as the Agricultural Produce Dealer now is.

(3) That there shall be amendments to the Law giving power to any Constable or Authorised Person to call on persons to account how they came in possession of bananas.

(4) That there shall be a definition of the word "Selects," and that your Committees would undertake to frame this definition.

It appears to me that the objects sought for cannot be done by making new Regulations, but that the Law must be amended, and I therefore suggest the following:—

Amendments.

1. (1) Any person desiring to use any motor vehicle or cart for the transport or carriage of any Produce under Class 2 of the First Schedule of this Law, shall make application to the Collector of Taxes for the parish in which the motor vehicle or cart is already licensed, under any Law or Laws dealing with the licensing of motor vehicles or carts, and shall in the case of a motor vehicle, as defined by Law 21 of 1922, as amended by Laws 9 and 37 of 1927, on the payment of the sum of 10/-, and in the case of carts, as defined by Law 30 of 1867, on the payment of the sum of 4/-, be granted a license for transport or carriage.

(2) The letter and number mentioned in the license for every motor vehicle or cart shall be painted at the right side of such motor vehicle or cart with the words, "licensed, for transport and carriage" in legible letters and numbers of the size of at least 2 inches in white, on a dark ground, and any owner of any such motor vehicle or cart who shall fail to cause his motor vehicle or cart to be so painted, shall be guilty of an offence against this Law.

2. (i) The driver, operator or person in charge of any motor vehicle or cart so licensed shall keep on, or in such motor vehicle or cart, a book wherein he shall record in the English language at the time or purcahse the name and address of each person from whom he or anyone on his behalf receives for carriage or transport any Produce under Class 2 of the first Schedule of this Law, the description of such Produce and the number or quantity, and such book shall be open at all reasonable hours to inspection by any Justice of the Peace, or any member of the Constabulary Force, or any person authorised under any Law for the time being in force relative to Praedial Larceny, and any such driver, operator or person in charge who shall fail or refuse to produce the said book for inspection shall be guilty of an offence against this Law; provided that no person making such inspection as aforesaid shall communicate the information so obtained except for the purposes of the administration of Justice. Justices of the Peace, members of the Constabulary Force or other persons making such inspection shall note in such book the date of his inspection and shall sign his name to such noting.

(2) The person in whose name any motor vehicle or cart is licensed for the carriage or transport of produce under Class 2 of the First Schedule of this Law, shall be guilty of an offence against this Law, if he fails or refuses to have with such licensed Vehicle when it is engaged in the carriage or transport of the said Produce, a person who is able to keep the book as required in the preceding Sub-Section, and shall also commit an offence if he neglects to keep or negligently or improperly keeps the book or fails or refuses to keep it with accuracy.

3. Any vehicle being the property of the grower of any Produce, under Class 2 of the First Schedule of this Law, may carry or transport such Produce from the property of the said grower, only, without being licensed for the carriage or transport of Produce: provided that whenever the said Produce is intransit on any public road other than a road in the parish of Kingston, or on any water highway, except in so far as such road or highway adjoins or passes through the property from which it is sent, it must be accompanied by a Form or Certificate in accordance with such Form or Certificate as the Governor in Privy Council may from time to time prescribe, which shall be delivered to the person purchasing or receiving the Produce: provided that when such Produce intransit as aforesaid is in charge of the owner thereof, it shall be sufficient for him to give his name and address.

N.B.—(The above Section should be an amending Sub-Section to the present Section 11 of the Law, and Section 12 should be amended by inserting the words "2 and" before "3").

4. Whenever any person, hereinafter called a suspected person, selects or carries on a trade or business of buying or selling, or buys Agricultural Produce, or has been or is in possession of any of the articles of Agricultural Produce under the First Schedule of this Law, without having taken out a License as required by this Law, it shall be lawful for any member of the Constabulary Force, District Constable, or person authorised under any Law for the time being in force relative to Praedial Larceny, if he shall have reasonable cause to suspect that any such articles have been selected, bought or sold, or has been or is in possession of any suspected person, to call upon such suspected person to account to him, as to from whom or where such suspected person has obtained such article or articles of Agricultural Produce, and if such suspected person shall refuse on demand to comply with such request, or fails to satisfy the member of the Constabulary Force, District Constable, or person authorised as to how he had selected, or bought or sold or has been, or is in possession of such article or articles of Agricultural Produce, he shall be guilty of an offence against this Law.

You will observe that I have not touched upon the Traveller's License, as your Society has already submitted to the Government that this type of License should be done away with, and I informed your Deputation that I was in agreement with them.

If it is so desired, in order to clarify anything to do with my suggestions, before you forward them to your Committee, I will instruct Inspector W. A. Orrett, who is fully conversant with my views on the subject to have an interview with you at such time and date as may be convenient."

(Sgd.) OWEN F. WRIGHT,
Inspector General.

Mr. McDaniel suggested the following amendments to the Inspector General's suggestions:—That wherever the word "purchase" occurred the word "receival" should be substituted. That in addition to the parties authorised under the Law, that Inspectors of Produce be added, and that in Clause 3 reading "The person in whose name any motor vehicle or cart is licensed" there should be added "or the agents of such persons in charge of such vehicles." That the license fee should be 5/- for motor vehicles and 2/6d. for carts, instead of 10/- and 4/-

respectively. That all vehicles be licensed whether carting owners fruit or otherwise.

Mr. McKay suggested that Justices of the Peace engaged in the purchase of bananas should not be allowed to inspect the books.

Mr. Walker pointed out that the matter of the transportation of of bananas by beasts and by headloads had not been considered.

It was finally decided that a copy of the correspondence read be sent to each member of the Board and comments thereon be solicited to be placed before a meeting of the Committee to be summoned shortly to further deal with the matter and bring it to completion.

The Secretary was directed to convey the thanks of the Board to the Inspector General for his interest and exhaustive study of the subject.

(a) *Report from Planning Committee.*—The Secretary read the following:—

July 2nd, 1935.

To the Board of Management:

Gentlemen,

Your Planning Committee met on the 28th June, 1935, and as a result recommend as follows:

1. That officers of the Society be instructed, and members of the Board of Management requested to make recommendtions for suitable locations with suitable land in small settler areas for the small demonstration farms to be established during the current financial year by the Department of Science and Agriculture. There is provision for five such farms.

2. That a sum of £200 be earmarked and authorised as a revolving account to meet the expenses of shipping, packing, crating, etc. of vegetables for export for farmers, this advance to be available only for vegetables packed at the Government packing house and such advance to be limited to £10 to any one grower at any one shipment, and not more than one-third of the sum to be expended in this way for one shipment; the account sales and proceeds from such vegetables to be passed through the Society.

3. That Instructors be brought in one or two at a time to take a course in packing vegetables at the Government packing house.

4. That the Instructors report on areas where cheap storage huts for storing corn on the cob to safeguard the corn from attack of weevils and rats, could be erected. The Department of Science and Agriculture is prepared to finance two or three such experiments

5. That the steps taken by Government to encourage the production of cigar leaf tobacco and their proposal for the appointment of a specialist be endorsed, and that the Board express the desire that action might be taken as speedily as possible.

6. That census surveys be resumed as soon as possible in the districts that have been approved.

(Sgd.) GLAISTER BAXTER,
Secretary.

On the motion of Mr. Barnes seconded by the Chairman the report was adopted.

(b) *Citrus: Letter from Director of Agriculture re plants for Harmons District.*—Letter from the Director of Agriculture was submitted stating in regard to the resolution forwarded to his department re distribution of citrus plants to the Harmons district that the officers of the Agricultural Department considered it would be unwise to plant citrus trees in the areas subject to periodic flooding, as experience had shown that they might be destroyed before they came into bearing. It was recommended that attention should be given to the planting of catch crops.

The Secretary was directed to forward the information to Mr. Phillips the original mover of the resolution.

(c) *Redpeas—Letter from New Road Branch.*—The New Road Branch in this letter asked that the attention of the Board be drawn to the handicap to the redpeas industry in the lack of proper curing and storing appliances, thus having the grain very susceptible to insect attack and requested that the matter be taken up and advice given to the Branch.

The Director of Agriculture said that the Government Entomologist had this matter under study.

The Secretary was directed to deal with the matter.

Shows.—

(a) *Cornwall Agricultural Exhibition.*—Application from the Cornwall Agricultural Exhibition for permission to hold a Show under the auspices of the Society on the 1st January, 1936, was granted, the Secretary having stated that the regulations had been complied with.

Office.—

(a) *Secretary's Report on travelling for June* was submitted and noted.

(b) *Application from Miss Lewis for 2 weeks leave* was granted.

Diseases of Plants and Animals: Insect Pests.—

(a) *Panama Disease of Bananas—Report for May.*—The monthly report on the incidence of Panama Disease was laid on the table. The Secretary stated that copies had been forwarded to individual members of the Board.

Resolutions from Branches.

On the motion of the Director of Agriculture seconded by the Chairman, the Secretary was instructed to forward the following resolutions to the proper heads of departments or other bodies concerned:—

- (a) St. Catherine Branches Associated re:—
  - (i) Roads and Bridges—18 Resolutions.
  - (ii) Water Supply—7 Resolutions.
  - (iii) Savings Bank at Harewood.
  - (iv) Mail Service—3 Resolutions.
  - (v) Hookworm.
  - (vi) Yaws.
  - (vii) Parochial Dispensaries.
- (b) Tranquility re Caution Boards near Schools.
- (c) Frankfield re widening of Square (Township).
- (d) Springfield (St. Elizabeth) re Taxpayers and work on roads.
- (e) Ulster Spring re appointment of Agricultural Headman.
- (f) Manchester Branches Associated re Savings Bank at Lorrimers.
- (g) Bunker's Hill re Post and Telephone Office.
- (h) Mt. Horeb re Savings Bank at Mt. Horeb Post Office.
- (i) Brae Head re Journal of the J.A.S. and Juveniles.
- (j) St. Thomas Branches Associated re,
  - (i) Caution signs near school.
  - (ii) Screens for meat stalls in market.
  - (iii) Ticket Distributor re Hordley Hospital.
  - (iv) Yaws.
  - (v) Land Settlement.
  - (vi) Water Supply—2 Resolutions.
  - (vii) Postal Facilities.
  - (viii) Unlicensed Buyers of Bananas.
  - (ix) Road.
  - (x) Finger Post at Wilmington Crossing.
  - (xi) Resolutions sent to Parent Society.

Other Business.—

(a) *Tobacco Industry—Letters.*—The Secretary placed before the meeting correspondence he had in hand re Virginia Tobacco Industry.

It was decided that copies of the letters be forwarded to the Director of Agriculture.

Mr. Barton said that in this connection he had been asked to request the Director of Agriculture to take a parcel of tobacco to England and show it to interested parties.

The Director of Agriculture promised to do this.

(a) *Beekeeping—(i) Letter from Mr. T. A. Gayle* requesting that permission be granted for the holding of a Beekeepers' meeting at the offices of the Society at 7.30 p.m. on the 24th July.

Permission was granted.

(ii) *Government Notice*—Letter No. 4680/34 of date 28th June, 1935, from the C.S.O. was submitted covering copy of a Government Notice in regard to the issue of Certificates of Origin for honey from Jamaica to be imported into the French Zone of Morocco.

The Secretary was directed to publish the notice in the Journal.

(c) *Letter from Mr. H. D. Davidson re Small Stock Subsidy.*—Letter from Mr. Davidson of Cavaliers was submitted requesting that his Poland China boar be recognised for subsidy.

Letters from Instructors Hanson and Henderson were read recommending the animal as suitable.

It was agreed that the subsidy be granted.

(d) *Resolutions from Moore Town Branch re Bridge over Negro River and Telephone facilities* were submitted, and the Secretary directed to forward same to the proper authorities.

Instructors Committee Report.—

The Board then decided to deal with the Report from the Instructors Committee.

The Secretary read the report as follows:—

Kingston,
3rd July, 1935.

To the Board of Management—
Gentlement,

Your Instructors' Committee met this morning and recommend the following:—

1. That the Green Island Branch in Hanover who wrote asking if it was compulsory for Instructors to attend night meetings of Branches, be replied to that it was a matter of domestic arrangement between the Branch and the Instructor.

2. The Committee considered a latter from Instructor Robotham asking what was the position with regard to Instructors and School Gardens now that the Department of Education was about to appoint their own Agricultural Inspector. The Committee recommend that no action should be taken until the appointment is made and then the Secretary should be instructed to discuss the matter with the Director of Education.

3. Application for a loan of £45 was submitted from an Instructor. The Committee recommends that the loan be not granted, but the Secretary be authorised to assist the Instructor with advances against his salary if after enquiry this is found necessary.

4. One month's leave of absence during August is recommended for Instructor Martin.

5 Complaint from Mr. M. H. Segre in regard to Instructor Kelly and a letter on the matter from Mr. W. Harper Watson was considered, and it is recommended that during the week of the Half-Yearly Meeting when the Instructors will be in Kingston, that the Secretary and Chairman should investigate the matter and report for the information of the Board.

6. The following application for affiliation are recommended.—

(a) Mulgrave	(St. Elizabeth)	Resuscitated.
(b) Bath	(St. Thomas)	"
(c) Aeolus Valley	Ditto	"
(d) Mearnsville	(Westmoreland)	
(e) Porter's Mountain	Ditto	
(f) Elderslie	(St. Elizabeth)	
(g) Vaughansfield	(St. James)	
(i) Cacoon	(Hanover)	
(j) Dignum Mountain	(St. Catherine)	

Application from the Riverside Branch in Hanover for affiliation was also submitted, and it is recommended that affiliation be granted subject to complying with the regulations regarding minimum number of members.

(Sgd.) GLAISTER BAXTER,
Secretary.

The report was adopted.

The meeting then adjourned to Wednesday the 7th August, 1935, at 11.30. a.m.

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EDITORIAL COMMENTS.

AN AGRICULTURAL SURVEY.

In our last issue we commenced a survey of the agricultural position of the colony and promised our readers to continue it, as lack of space then enabled us to survey the position of only two of our crops, i.e., The Bananas and Livestock Industries. We continue our survey.

Sugar—

In looking over the sugar situation, it cannot be considered satisfactory. The industry as it stands is sustained by preference in Great Britain and Canada and the local Government also offers protection to the industry by practically a prohibition of imports of sugar from other countries and controls the selling prices, placing same at a level that in effect provides a subsidy to the industry. All this, would under average conditions be expected to bring our sugar industry prosperity, but two unfavourable factors, both beyond our control, affect the industry so seriously as to keep it to loss, or marginal profits only. The first difficulty is the dumping of foreign sugars in British Empire markets at below cost of production prices. Cuban sugar was being marketed in London at under 4/- per cwt. for some time and even now it is below 5/- per cwt. How sugar can be grown, harvested, manufactured and shipped from the Tropics to European markets and sold at these prices is hardly understandable, but nevertheless the bald fact remains. The preferences we get may be said to be completely nullified by this unrestricted entry of sugar dumped regardless of costs on British markets.

The other difficulty is that in effect our sugar production marketable in protected markets is governed by a quota and so expansion of the industry is practically throttled.

The sugar farmers, it has to be admitted, have done wonders in increasing the efficiency of their production, both in field and factory but have now to mark time and await political events.

The most distressing feature that has developed is that the small cane farmer can hope for no expansion of his outlet for cane, that is, if he already has one and if he has not already an outlet can hope for none, except at a sacrifice on the part of the factory owners, who usually have more land for production than factory capacity for manufacture. In the meanwhile quite a considerable public opinion is voicing the feeling that as the factories are operating with the help of British protective tariff and Jamaican controlled prices to the consumers that factory capacity should be controlled with a view of allowing the small cane farmer the opportunity of producing a certain percentage of the cane needed for factory operations. In the meantine in many areas the Panama Disease is throwing banana lands out of production which are well suited for cane and the small farmers become poorer and more restive as they know this and can find no markets.

Unless something turns up to solve these problems we can hardly look forward to sugar for our agricultural salvation. We in the meanwhile can only endeavour to maintain our position.

Rum, an important by-product of sugar manufacture, has for years been experiencing a decreasing consumption, due to nearly prohibitive duties in Great Britain and the vanishing purchasing power of our former European customers.

The Cocoanut—

The situation of another of our important crops, i.e., the Cocoanut, is interesting. Co-operative endeavour and Government protection has managed to find a reasonably profitable outlet for the cocoanuts we produce. A small proportion of our best nuts is still exported abroad, mainly entering the confectionery trade. As can readily be understood, this trade can only absorb limited quantities and is easily affected by the prosperity or otherwise of the buying countries. Confections are not essentials, they are luxuries, and the luxury trades are the first affected by depression and the last to recover.

The fact is that in the manufacturing industries, the cocoanut is experiencing such competition that it is hardly likely to survive.

Such products as the peanut, the soy bean, and palm kernels provide as cheap and suitable raw material for the oil trades as the cocoanut does, and in the instances of the first two named, they are or can become home industries in many countries and as such do or are likely to enjoy protective tariffs.

It seems that it would be wise to encourage no considerable expansion of our cocoanut cultivation, but only to maintain our production at the level that our local market can absorb.

We do not feel that this is a calamity as the returns of cocoanuts per acre are very meagre and is a crop, is not likely to improve land values nor Government Revenues, but we feel that the true position should be fully realized.

Citrus—

One crop of which we are most hopeful is Citrus. But the situation is not one of plain sailing and much work has yet to be done and some corns hurt before we may feel safe as to our progress.

After years of preaching it is at last dawning on the citrus grower that standard varieties are essential if our chances of competition for world markets is to be worth anything. This point has only been gained through the partial loss of the seeded grapefruit crop this year, through lack of demand in oversea markets for this type of fruit.

We have much suitable land in Jamaica for this crop,—more than is suitable for any other of the major crops and another staple crop of wide marketing possibilities is very much needed.

The slow increase of acreage under citrus is undoubtedly due to lack of availability of capital to the farmer. This spells needed agricultural credit. We are pleased to note that a small credit scheme in regard to this crop has been adopted by Government and sanctioned by the Legislative Council.

I feel sure that it will result in more rapid extension of the crop on an orchard scale.

Marketing control seems an essential, but packers with established interest are not unanimous in the acceptance of the inevitable and so the industry continues to languish. Strong action is necessary and we hope it will be forthcoming to save the industry and assure its expansion. It will be seen that even this industry has its problems.

Coffee—

Our coffee industry is finding itself in a tight corner. For very many years it has been the standby of the peasant farmers of the Colony. Even in times of serious depression the prices kept a level, which permitted some small margin of profit and so encouraged the maintenance of the crop and sufficient new plantings to replace the very old trees. We had little competition from Empire sources and that assisted the situation. We now find that we are up against the highly organised

coffee industry of Kenya, in which coffee is produced on a large scale by large estates and on fairly high altitudes, resulting in a good quality coffee, which quality is further enhanced by efficient methods of curing and grading, and this coffee is finding itself in our former markets and is earning the preference of dealers on account of its uniform good quality. It would appear to us that despite the fact that coffee is a crop that is well suited to the needs and circumstances of our peasant farmers, unless the curing, processing and grading of these coffees are so organized as to enable factory methods to be applied to the cherry ripe coffee, we cannot hope to achieve uniformity in quality, and without this our hope of competing in our previously profitable markets might be scrapped. We will then only have to be satisfied to have a job lot price for our product and this will prove so discouraging and unprofitable that considerably lowered production will result and one hitherto reliable source of income to the farmer will be lost. Here is another problem that requires action.

Pimento—

Certain other of our minor industries have in the past year or two met such misfortune that little comment need be made to impress the seriousness of the situation as it affects them. Pimento, for one thing, after an inflated bubble of prices had burst encountered an abnormally low price and within the past two or three years developed a serious disease among the trees, no economic control of which has up to now been discovered.

There are certain areas in Manchester especially, where the crop has proven nearly a total loss, whilst in several other large pimento producing areas the crop has been greatly lessened by the disease.

Logwood—

The logwood market has been so shattered that only very limited amounts of logwood can be sold and these limited quantities are rationed out to a few people. The widely distributed income that the sale of logwood used to provide for all classes of landowners, which used to be availed of for the purpose (especially in the case of the smaller landowners) of paying taxes might be regarded as practically gone.

Honey—

The Bee Industry is now selling honey at about half the usual normal price, and in addition to that Foul Brood has broken out for the third time in the Island and there is a considerable number of beekeepers who feel that the disease might never be entirely eradicated. Here, too, organised marketing is necessary to the improvement of the industry and yet it is nearly impossible to get unified action from a comparatively small number of people who claim an average high intelligence.

(*To be continued.*)

ANNOUNCEMENT.

The Jamaica Agricultural Society has appropriated a sum of money for financing the crating, crate and freight of vegetables exported and which are packed at the Government Vegetable Packing House in Kingston. The Society will advance the money necessary to cover these charges and will charge 3d. per crate for the service. On receipt of Account Sales from their brokers abroad returns will immediately be made to the producer. The service is available only to bona fide growers of the vegetables to he handled.

There are ponds in Jamaica here and there situated on tops of hills with no apparent watershed but which usually provide reliable supplies of water through extended drought periods. It has often been a cause of wonder to many people how this is possible. Many have the idea that they are supplied by springs, but on account of their situation this reason would appear quite improbable. We strongly suspect that they might be dew ponds and as we have had an enquiry latterly regarding the principle of dew ponds we thought it would be interesting to our readers to reproduce the information given below, which is extracted from Harmsworth's Encyclopædia.

Editor.

A DEW POND.

A dew pond is an artificial basin with a layer of material that is a good non-conductor of heat below. It has the remarkable property that dew forms on it in greater quantity than on surrounding objects, and that it will also collect dew on nights when the country in general gets none. The supply of dew at night during a dry summer is adequate not only to compensate for evaporation by day, but also to afford a valuable supply of water; for instance, in the otherwise waterless parts of the down country of the South of England, all stock are watered at dew ponds.

The reason why a dew pond supplies itself with water is really very simple when it is properly understood. On a calm and cloudless night the air which has been warmed during the day tends to cool rapidly by radiation of heat out into space, while at the same time the warm earth radiates heat up into the air; the result is that the air, which is losing heat above, but receiving some compensation from below, cools slowly, so that dew is likely to be deposited on the ground in small quantity towards the end of the night when the air temperature has dropped low enough to cause condensation of the water vapour in it.

Now a dew pond, with such water as it contains already; may be considered as a patch of land over which a shallow surface layer is cut off from all heat communication with the deeper seated levels of the soil; hence the dew pond gets quite cold by radiation quite early in the night, after which it ceases to keep the air above it warm by further supplies of radiant heat. The consequence is that the air above the pond becomes so cold, by itself radiating its heat upwards, especially at the bottom where it is in contact with the cold pond, that it deposits dew in the pond basin. Again, the coldness of the column of air above the water causes it to descend on to the pond surface, deposit its dew, and flow away horizontally.

Area and Depth.

Not much dew is collected on windy nights, as the air does not remain over the pond long enough to be cooled to the dew point unless the pond is very large—an argument in favour of a large area. The depth of the pond should be quite small, the pond being rather saucer shaped than bowl shaped. The formation of dew is almost inhibited by overhanging trees, or by a layer of clouds over the sky, for the reason that such a covering above the pond radiates heat downward at night, and thus reduces the rate of chilling of the air to such an extent as to prevent the deposit of the moisture it contains. Dew ponds are therefore always made in the open, clear away from trees. Board fences close to the pond are also objectionable, because they hinder the

continuous circulation of warm and cold air. The exact top of a hill is always chosen in preference to other sites, as it affords ideal conditions for the downward flow of constantly fresh supplies of air.

Insulating Materials.

From what has been said about dew ponds action it will be understood that everything depends on the efficiency of the heat-insulating layer under the pond. All practicable insulating materials are either of a granular or of a fibrous nature and depend for their action on the air entangled in the interstices. This air cell formation renders them peculiarly liable to absorb water, so that care must be taken to avoid any possibility of access of moisture, since when waterlogged the lagging becomes quite inoperative and the pond ceases to function and can only be restored by complete rebuilding.

If the soil is well drained and of a dry nature, such as the Sussex chalk or the Surrey gravel, all that is needed is to select a site on level ground to preclude the possibility of disaster being caused by small surface rivulets in time of heavy rain. Given such a site the pond can be dug out, thickly lined with straw or reeds, covered with a good crust of carefully puddled clay extending well out over the margin of the straw to keep it dry, and the clay protected by a thick layer of stones or pebbles.

If the soil is lowland clay or loam, a pond sunk below ground level is doomed to fail, and it is better to have the whole of the pond above ground. This may be arranged by building a low skirting wall with drainage holes through it at intervals round the base, forming the surface of the ground inside to a slight rise in the centre, paving the bottom with concrete or otherwise to prevent interference by earthworms, and then putting in the lagging, puddle, and stones. Dew ponds do not require artificial flooding when made, as they start work from the dry of their own accord.

* * * * * * *

OBITUARY.

It is with deep regret that we record the death of

John Mapletoft Nethersole, C.B.E.

late Administrator General and Trustee in Bankruptcy for Jamaica.

Mr. Nethersole was for many years a much esteemed member of this Society and despite his very busy life never hesitated when asked, to serve the Society.

His latest service to us was as a member of our Provident Scheme Committee and his contribution to the Scheme now before Government is highly valued by the Board of Management, the Officers and the Members of this Society.

SOME BANANA HISTORY.

We publish below some records of some of the earliest activities in development of our English Banana trade. These are very eresting. Giant oaks from acorns grow.

Ed.

Brinkworth and Sons,
Importers of Jamaica Bananas and
other West India Fruits,
50 High St., Southampton,
September 22nd, 1901.

Jamaica Bananas.

We are receiving a consignment of about 4,000 bunches of fine selected maica Bananas, by the Royal Mail SS. "Para," due here on the 25th, id we purpose selling the Bananas on Thursday next, the 26th inst. The "Para" has been specially fitted up with "The Lawton" ompany's Sterilized Air Process, and the fruit under this new treat-ent is expected to arrive in very fine condition. We shall be glad if ou can make it convenient to come and inspect this trial shipment, s we feel sure a visit will pay you.

BRINKWORTH & SONS.

Brinkworth and Sons,
Potato Growers and Shippers,
Fruit Merchants and Commission Agents,
Southampton,
Oct. 28, 1901.

To Messrs. Soutar & Co., Jamaica.

Dear Sirs,

We are duly in receipt of your esteemed favour respecting the sale of Bananas, Oranges, Grape Fruit, etc., and in reply beg to say that we could handle from 3,000 to 5,000 stems Bananas, 500/600 boxes Oranges, 50/100 boxes Grape Fruit, fortnightly at remunerative prices, providing the fruit came to hand in satisfactory condition.

We were intrusted by the United Fruit Co., with the sale of the trial shipment of Bananas, Oranges and Pines by the S.S. "Para" fitted up with Lawton's new process and notwithstanding the fruit did not reach here in the condition it was expected (thro a defect in the machinery) we succeeded in disposing of the whole consignment by private sale the day it arrived, at top market value.

As a matter of fact we had up to 4,000 bunches of bananas sold to arrive at 6/- per bunch, to go to all parts of England but as the fruit would not travel, we disposed of the greater part of it here locally.

We have exceptional facilities for disposing of large and regular consignments of fruit, at highest market prices, being in touch with most of the principal wholesale fruit buyers in England and have special through railway rates to all the large towns from this port.

Our terms of selling are 5 per cent. commission, Bankers Draft with Sales Account, mailed day after sale—and our bankers are The London, City and Midland Bank Ltd., Southampton, of whom you are at liberty to enquire as to our financial position.

Should you decide to send a trial consignment, please cable us as soon as shipped so that we may arrange for its disposal on arrival.

Yours faithfully,

BRINKWORTH & SONS.

P.S.—Dried Bananas, we have no experience in and should like to see a sample when we would advise you as to whether they would sell or not. If palatable we should say, Yes!

We occasionally have enquiry for Banana Meal, could you also send sample of this and price please.

Please note in case you ship Bananas, Oranges, etc., they should come by Royal Mail to this port and *not* to Bristol.

The best boats for carrying this fruit is:—

1st The Atrata.
2nd The Trent.
3rd The Orinoco.

Enclosed Proforma Sales Account as requested.

Yours truly,
BRINKWORTH & SONS.

Messrs. Soutar & Co., Oct. 29, 1901.
In Account with
Brinkworth & Sons,
Potato Growers and Shippers, Fruit Merchants and Commission Agents, Southampton.
S.S. "Para."
Proforma.

By 1,000 Bunches Bananas
30 Boxes Oranges
8 Cases Pines.
8 Barrels Grape Fruits

	£	s.	d.
To 500 Bunches Bananas at 6/6 ..	162	10	0
100 Bunches Bananas at 6/- ..	30	0	0
100 Bunches Bananas at 5/9 ..	28	15	0
100 Bunches Bananas at 4/6 ..	22	10	0
100 Bunches Bananas at 4/3 ..	21	5	0
50 Bunches Bananas at 4/- ..	10	0	0
50 Wasty and off stems for ..	4	5	0
10 Cases Oranges at 14/-	7	0	0
10 Cases Oranges at 13/6	6	15	0
5 Cases Oranges at 13/-	3	5	0
5 Cases Oranges Wasty at 8/6 ..	2	2	6
8 Cases Pines			
8 Pines at 1/2 ..	0	9	4
9 Pines at 1/3 ..	0	11	3
12 Pines at 1/5 ..	0	17	0
8 Pines at 1 3 ..	0	10	0
6 Pines at 1/6 ..	0	9	0
9 Pines at 1/2 ..	0	10	6
10 Pines at 1/3 ..	0	12	
8 Pines at 1/4 ..	0	10	8
4 Barrels Grape Fruit at 15/- ..	3	0	0
2 Barrels Grape Fruit at 14/ ..	1	8	0
2 Barrels Grapefruit at 8/ ..	0	16	0
	£308	1	9
Disbursements.			
To Commission on £308 1s. 9d. at 5% ..	15	8	0
Other expenses charged ..	4	1	6
Draft to Balance ..	288	12	3
	£308	1	9

GOVERNMENT'S CITRUS CREDIT SCHEME.

MESSAGE FROM HIS EXCELLENCY THE GOVERNOR TO THE HONOURABI THE LEGISLATIVE COUNCIL.

HONOURABLE GENTLEMEN:

I have the honour to submit herewith for your consideration a cop of a Scheme which has been prepared by the Director of Agricultu for developing the Citrus Industry in Jamaica.

2. The desirability of extending agricultural resources is fully recognise by all Honourable Members and the present proposals afford an oppo tunity of assisting a Scheme which should be self-supporting and whic is recommended by the Advisory Committee on the Banana and Citr Industries.

3. It will be observed that the Director of Agriculture recommen that a total of £7,200 be made available over a period of five years f the development of new orchards, viz.: £4,000 in the first year a £800 in each of the four subsequent years. The cost of administratic will, it is estimated, be met for the first year out of Votes alrea provided.

4. A Resolution seeking your approval of the Scheme will be mov by the Colonial Secretary in due course.

EDWARD DENHAM,
Governor.

King's House, Jamaica.
16th May, 1935.

SCHEME TO FINANCE THE EXTENSION OF CITRUS GROWING IN JAMAIC

1. The Government has adopted a policy of encouraging citr production by

(a) erecting a packing-house in Kingston, now leased to t Jamaica Citrus Producers' Association;
(b) establishing large nurseries for the production of budd plants of standard marketable varieties for sale at low price
(c) providing field services to assist growers;
(d) regulating the quality of fruit permitted to be exported;
(e) exploring overseas markets.

2. Many people are deterred from establishing citrus groves, or to working existing unsuitable trees, by lack of capital. There will some 73,000 budded plants available from the Government nurseri alone during this year, and bud wood of standard varieties is availat in ample quantity.

3. It is most desirable to establish citrus growing on a sound ba by encouraging the planting of substantial areas where soil and oth conditions are suitable.

4. The industry is a promising and permanent one. Trees on well established may be expected to yield profitably for many yea and may be top-worked with other varieties if necessary. Citrus is permanent orchard crop which should be encouraged as a support other crops such as bananas, coffee, and cocoa. It is not so seriou affected by severe storms as are bananas.

5. The main difficulty with the industry in its present state is that standard marketable varieties of grapefruit are available only in very limited quantities and the seeded nondescript types now exported have lost their position in markets well supplied with better fruit. Oranges command good markets in New Zealand and Canada owing to their juiciness, but it is desirable to standardize the types and to propagate the best marketable varieties.

6. There is no lack of suitable land, production costs in Jamaica are low, and the flavour, texture and juiciness of the fruit are of a very high standard. Jamaica is well situated in regard to markets in the United Kingdom, Canada and New Zealand, and shipping costs will undoubtedly fall as production increases.

RECOMMENDATIONS.

The proposals fall into two divisions:—

(a) the establishment of new orchards,

(b) the top-working of existing suitable trees to standard varieties.

(a) ESTABLISHMENT OF NEW ORCHARDS.

Applications should be invited from persons who possess not less than 25 acres of land, including a minimum area of 5 acres suitable for citrus growing in one block, and who are prepared to fulfil the conditions of the scheme.

The applications should be considered by a small Board, with the Director of Agriculture as Chairman.

The minimum area to be planted in respect of which assistance may be given should be 5 acres, preference being given to those willing to establish 10 acres. The maximum area to be planted for which assistance may be given should be 20 acres, but any person desiring to plant a greater area should not be disqualified from consideration in respect of the first 20 acres.

The assistance should be in the form of

(a) supplies of plants, to be paid for as set out below,

(b) a sum of money to help in preparing and planting the land.

(c) annual amounts for maintenance over a period of 4 years to aid in giving necessary attention until trees reach the bearing stage.

It is suggested that loans under (b) should be at a rate not exceeding £5 per acre, either by instalments or as a lump sum at the discretion of the Board, and under (c) at a rate not exceeding £1 per acre.

Plants should be supplied at current approved rates, the charges being debited to each person's account and regarded as a part of the total loan granted to him.

Interest should be charged annually on the amount outstanding at 5% per annum.

The loans should be subject to a lien on the crop until repayments were completed and power should be reserved to market the crop in cases where persons defaulted in their payments. Loans should be repayable as follows:—one-fourth in the seventh, eighth and ninth years and the balance with any outstanding interest in the tenth year. Any person desiring to complete his repayments earlier could do so.

Any person receiving a loan should be required to undertake to prepare and plant the land in accordance with directions from an officer of the Agricultural Department, to allow an authorised officer to have access to the land at any time, and to carry out any reasonable instructions in regard to the care of the plants.

Maintenance loans at a rate not exceeding £1 per annum (paragraph (6) would be subject to satisfactory care of the plants.

An agreement should be duly executed by the persons receiving the assistance.

It is recommended that a total of £7,200 be made available over a period of 5 years under this portion of the scheme, viz.: £4,000 in the first year and £800 in each of the four subsequent years.

Typical examples are as follows:—

I. Area 5 acres

Number of plants 350

		£	s.	d.
	Cost of plants at 3d. each for first 25 and 1/- each thereafter	£16	11	3
1st year	First year loan	25	0	0
		41	11	3
	Interest at 5%	2	1	7
2nd year	Maintenance loan, 2nd year	5	0	0
	Interest	2	6	7
3rd year	Maintenance loan	5	0	0
	Interest	2	11	7
4th year	Maintenance loan	5	0	0
	Interest	2	16	7
5th year	Maintenance loan	5	0	0
	Interest	3	1	7
6th year Interest		3	1	7
Indebtedness at beginning of 7th year		£77	10	9

	£	s.	d.
Repayments at £20 per annum for three years and balance in next year	£77	10	9
7th year repayment	20	0	0
	57	10	9
Interest	2	1	7
	59	12	4
8th year repayment	20	0	0
	39	12	4
Interest	1	1	7
	40	13	11
9th year repayment	20	0	0
	20	13	11
Interest	0	1	7
10th year final payment	£20	15	6

Note—Figures for interest are approximate.

Estimated Production and Gross Income.

	Boxes of Fruit.	Value unpacked at Orchard. £	s.	d.
5th	350	43	15	0
6th "	700	87	10	0
7th "	875	109	7	6
8th "	1,050	131	5	0
9th "	1,225	153	2	6
10th "	1,400	175	0	0

Catch crops would provide some income during the first three years.

II. Area 10 acres.
Number of plants 700.

		£	s.	d.
1st year	Cost of plants	£34	1	3
	First year loan	50	0	0
		84	1	3
	Interest at 5%	4	4	0
		88	5	3
2nd year	Maintenance loan	10	0	0
	Interest	4	14	0
3rd year	Maintenance loan	10	0	0
	Interest	5	4	0
4th year	Maintenance loan	10	0	0
	Interest	5	14	0
5th year	Maintenance loan	10	0	0
	Interest	6	4	0
6th year Interest		6	4	0
		£156	5	3
Repayments at £40—				
7th year repayment		£40	0	0
		116	5	3
Interest		4	4	0
		120	9	3
8th year repayment		40	0	0
		80	9	3
Interest		2	4	0
		82	13	3
9th year repayment		40	0	0
		42	13	3
Interest		0	4	0
Final payment		£42	17	3

Estimated production, etc. (double figures in former table).

No loans in actual cash would be required to pay for plants. The value of plants supplied would be debited to the approved persons and interest would be charged. The scheme would enable 800 acres to be planted in the proportion of 3 acres of grapefruit to 1 acre oranges. The production in the 10th year from this area may be estimated at 224,000 boxes with an f.o.b. value, packed for export, of £84,000.

(b) The Top-working of Existing Trees.

The quantity of standard varieties, particularly seedless types, of grapefruit available for export can be rapidly increased by an organised programme of top-working. Trees of suitable conformation which are well planted and likely to be profitable over a period of years can be worked over with buds of seedless varieties and brought again into bearing in the third year. Market Reports serve to emphasise the recommendation of the West Indies Fruit and Vegetable Conference, 1933, to the effect that such steps should be taken.

The best method of dealing with this aspect of the matter is to provide facilities free of charge, and without responsibility, to carry out the necessary work for limited numbers of trees on behalf of owners as part of the Citrus Development Programme. In cases where a large number of trees require attention for one owner, a charge to cover material and labour should be made.

The Top-working Programme should be confined to grapefruit growing under suitable conditions, and with a satisfactory density of planting. The approval of requests for top-working service might be left to the Board referred to in paragraph 6 (a), with the condition that not more than 25 trees may be treated for one owner without charge.

CONCLUSION.

The personal services required under this scheme could be provided by the Department of Agriculture and the Jamaica Agricultural Society. During the past two years apprentices have been trained and are now available for field work under the Citrus Development Scheme. Necessary supervision could be exercised by officers already on the staff who are directly concerned with citrus extension work. A small addition to the amount provided for the item "Development of Agricultural Industries" under Head XXXVI would enable the scheme to be administered. The sum of £500 is suggested to cover clerical services and additional travelling expenses.

The scheme has the full support of the Advisory Committee on the Banana and Citrus Industries. It is desirable to proceed at an early date if it be approved, as the plants will be available during the current year.

A. C. BARNES,
Director of Agriculture.
26th March, 1935.

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CULTIVATION OF COFFEE (Coffee Arabica.)

By INSTRUCTOR C. V. ATKINSON, Agricultural Instructo,r
Eastern St. Ann.

Introduction.

While we are to-day thinking of crops that can replace bananas—, should in case this crop fail, owing to the ravages of Panama Disease—we should not forget the coffee plant. Before the advent of banana cultivation, coffee stood foremost as one of Jamaica's chief crops.

The beverage produced from the Blue Mountain coffee in Jamaica is known to be the best in the entire world.

Locality.

While coffee may be successfully grown as low as 500 feet above sea-level, provided it is not exposed to high winds and is shaded; it will do best at an elevation of from about 500 to 4,000 feet above sea-level.

Soil.—A virgin forest soil is the best for growing coffee. In any case the soil must be deep, free and open. On steep slopes it should be firm, but not clayey. Some of the best coffee soil is mixed with a proportion of sand, gravel, or small stones, all of which contribute to the natural drainage. Even on our red soil, which is of limestone formation, good coffee is produced, given the necessary rainfall. Prevailing strong winds are injurious.

If the plantation, or field is well protected from winds, is sufficiently shaded to keep the air humid in dry weather, and the soil is well cultivated and mulched, good coffee can be produced as low as 500 feet or less above sea level.

Preparation of Soil.

With the exception of the Blue Mountain areas of St. Andrew, coffee is usually established by planting between bananas in Jamaica, so that the clearing of the land done for bananas serves for coffee. If however, one wants to plant coffee by itself, the following steps should be taken.

Clear the land of all lesser growths. If there are big trees on the plot cut down some and stump them out carefully. Trees that show promise of good shade however, should be retained here and there depending on their spread—to provide shade for the young plants.

If the soil is poor, arrangements should be made for manuring it either by fly-p nning, applying stable manures, mulching or some other form of manures, before the actual planting begins.

Never burn the grass and bush, as they will add to the store of organic matter in your soil and in time rot and provide humus—a very desirable element.

Propagation.

The most dependable plants are raised in *nurseries.* Select seeds from fresh ripe berries taken from healthy trees which are regularly heavy bearers, make the usual nursery beds 4 feet wide by a convenient length, with walks 2 feet wide between. Sow the seeds in drills that are 6 inches apart setting the seeds out 2 inches apart in the drills. Cover with about 2 inches of soil. By adding to the beds the surface soil from the walks they become well raised and assist drainage. This is done before making the drills and sowing. By using logs, or by opening trenches washing is controllèd. Keep the soil moist, and the nursery free from weeds. Shade is essential.

Opinions differ as regards the stage at which to transplant. Normally the seedlings are fit for transplanting when they are about a year old; or when they have produced four little branches. Experience teaches that such plants are better able to resist hard conditions, such as drought, than those that have put on leaves only.

"*Rat-cut* coffee suckers," and stumps of overgrown seedlings provide chances which in the large majority of cases it is not wise to take.

Distance.—Other conditions being equal, the richer the soil the wider must the trees be planted; at the same time the hotter the aspect the closer the planting. Where the wind blows strong it is customary to plant wide, but top low, so that the trees spread more.

In the mountains the distances observed are 8 feet by 8 feet, 7 feet by 7 feet, 6 feet by 6 feet, according to varying conditions.

Lining.

As soon as the distance apart is decided upon the field should be carefully lined out. Good lining out will give a good appearance to the field and will also make after-cultivation easy.

Holes.

There is a tendency for most people to use a machette, pick, digger or some similar tool to dibble a hole and then put the seedling in The poor plant set out thus has a very poor chance of developing a good root system—a thing which is very desirable if the plant is to thrive.

Holes for planting coffee should be at least 18″ in all dimensions. These after at least a week's exposure, should be filled in with surface soil, so as to form hills.

These "hills" should also be left for a week or two to settle down before the plants are put in. A few months after planting, these "hills" will settle down to the level of the surrounding soil.

Actual Planting.

Before planting see that all damaged roots are carefully trimmed back or cut off as the necessity arises. On no account should the seedlings be set out deeper in the new soil than where they were in the original soil. In planting keep the tap root down and spread out the laterals in their former positions. The soil should be gently pressed around the tap root and laterals a little at a time until the surface is reached. After the last pressing is done, take some loose soil and place on top; so as to create an earth mulch. Give each plant a good watering and put a stake about 3 feet tall beside each one. This will act as a mark to labourers weeding the field and also as a support for the plant. When the plant is slung to the stake there will be less likelihood of breeze shaking the plant and injuring the root hairs, which would greatly retard its growth. When all this is accomplished mulch each hill with straw or leaves.

On no account should more than one plant be put in a hill. People very often put in two, giving the reason that if one dies the other may grow. When they both grow however, very few persons will go back and take one out. Consequently there remain two plants where one should be.

Catch Crops.

A limited amount of catch crops can be successfully grown between coffee until about the end of the third year when catch cropping should cease. Bananas can with proper care be carried on indefinitely in a mixed cultivation. Leave out catch crops which will cause injury to the roots of the coffee.

Shade.

Coffee, except on the very high altitudes should be shaded. It is however possible to have too much shade. The following trees provide good shade for coffee.

Guango, Breadfruit, Jack Fruit, Bois immortelle, W.I. Cedar, 'Woman's Tongue' and bananas which should only be be considered as temporary. These shade trees should planted in advance or at the time of planting the coffee.

It is advisable when establishing coffee under bananas to plant shade trees between, as if the bananas are the only shade the coffee will suffer when the bananas are affected by hurricanes or Panama Disease or if the bananas fail otherwise.

In selecting shade trees it is desirable to avoid trees that break readily and such trees as the avocado pear which seems to favour—when decaying, conditions which will lead to Root Disease of the coffee.

In thinking of shade trees, one may also think of a tree that will be useful otherwise than merely supplying shade.

After Cultivation.

The field should be kept free of weeds. Manures should be applied between the rows and if practicable the whole area should be well mulched. On the red soils, it is necessary to give a good mulching each year so as to ensure a good crop, and to maintain the fertility of the soil.

Pruning.

(a) *Short Top Coffee*—retains its lowest branches which are the best; it is stronger above and below ground; it is not easily damaged by wind. Another advantage gained in growing this coffee is the ease with which it can be reaped. To grow short top coffee proceed as follows:—

When at a height of about 4½ feet or less, according to aspect, cut off just above the last pair of primaries but one, you wish to keep, cut back to within 2 or 3 inches of the stem this last pair of primaries. By so doing a bump will be the result, which will assist in preventing the tree when it has on a heavy crop from splitting. In pruning to procure short top coffee, only one main stem should be kept. Great care should be exercised to preserve the primaries, as when once destroyed they never usually grow again.

A funnel shaped centre should be permanently retained adjacent to the main stem. This should be about sixteen inches wide at the top and should gradually get narrower towards the root. If growths are pruned when young much less labour will be required and the shock to the tree will be less. No branch which turns inwards or upwards should be kept.

(b) *Long Top.*—Two or more gormandizers should be allowed to grow. Of the three or more main stems now in the root, cut away the oldest when it fails to justify its retention and encourage another gormandizer to take its place. Whenever any of these stems become old or undesirable cut it away and encourage agormandizer as before mentioned.

Tools for Pruning.

It seems unnecessary to speak on this phase of the subject, but as one very often sees coffee being badly butchered, a few words on it might not be entirely out of place. The best tools for the purpose are:

1. Pruning Saw (cost about 7/-).
2. Pruning Shears (cost about 8/-).
3. Pruning Knife (cost about 2/- to 6/-).

If one's hand gets accustomed to prune with a machette, fairly good cuts can be made, provided the cuts are made up and not down.

The larger limbs should be taken off by the use of the saw. The knife must then be used for removing the broken edge left on the surface of the cuts. The swollen limbs may be taken off by either the pruning shears or the knife. All limbs to be taken off should be removed just where it joins the stem or the other limbs. These cuts should be made smoothly and slantingly.

The man who usesa dull tool for pruning has no regard for himself or the tree.

The nature of the coffee wood being hard, it is not absolutely necessary to use a protective substance on the wounds. If however old trees are cut back it is wise to use tar on the cuts. This should be well rubbed in.

Harvesting.

Coffee will bear in from two to four years after planting. Stumps that have been cut back will bear earlier than seedlings.

(a) Pick only thoroughly ripened berries, so as to get good quality, an even sample and full weight.

(b) In order to prevent tearing the trees, pick the berries on one side at a time, when finished go to another side and so on until completed. To remain at one spot and try to pick all the berries from the different limbs is a sure way of destroying some of the limbs.

Any inter-cultivation necessary should also be done immediately after the crop is off.

Conclusion.

In conclusion, I wish to recommend the cultivation of this crop to anyone who is desirous of establishing a permanent crop, as I am confident that with good cultivation and care of this crop, proper reaping and curing, the financial results will be satisfactory.

Some time ago we published an article showing a method of arriving at the weight of Indian cattle by measurements. It created a great deal of interest. We now have the opportunity of publishing an article on similar lines as regards pigs, and it should prove very useful as many small farmers have not got scales of sufficient capacity to weigh their pigs.

Editor.

MEASURING THE WEIGHT OF A PIG.

Extract from Queensland Agricultural Journal, 1st April, 1935.)

The smaller the animal the greater the risk of error in calculating the dead weight from measurements and calculation. However, a rough guide may be obtained by measuring the length and girth, taking the girth of the animal in inches, just behind the shoulders (AB) right round the body, and measuring the length in inches from a point midway between the ears, along the curve of the back (CD), to the tail-head. Then to get the approximate dead-weight of the animal in pounds use the following formula:—

$$\frac{\text{Girth} \times \text{length}}{524} = \text{Dead-weight in lb.}$$

Thus, if the length measured as shown were 46 inches and the girth 40 nches, then by squaring the girth (i.e., multiplying it by itself) the esult is 1,600, which multiplied by the length gives a product of 73,600. This figure, divided by 524, gives approximately 140 lb., which would be the dead-weight required.

There can be no doubt that the system of actually weighing the pig alive is better, and this may be done conveniently by means of platform scales or by means of a crate suspended from a large spring balance. If the live-weight is actually taken by weighing in this way, then it is necessary to calculate the dead-weight from it by estimating that the igure required will be from 70 to 80 per cent. of the live-weight, according to skill in judgment and the degree of fatness attained by the animal.

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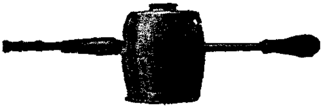

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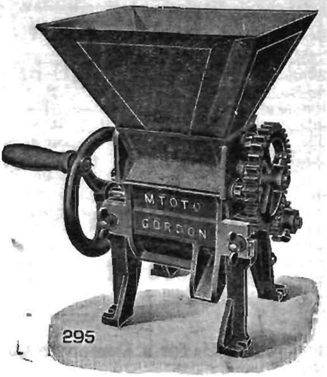

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Myers Wharf P.O., Kingston.

THE COFFEE SITUATION.

By A. P. HANSON, Agricultural Instructor, Upper St. Andrew.

Much concern is being felt over the coffee situation to-day as it affects Jamaica. The question is being asked what can be done to rescue, one could almost say salvage, Jamaica's coveted reputation of the past in the markets abroad. There is nothing wrong with the inherent qualities of our coffee. It is naturally of excellent quality. The mischief is done by the human agency as from the time of the taking in of the crop.

Only such persons as take more than academic interest in the activities of the Jamaica Agricultural Society, notably among whom are officers of the local Branches, know the opposition that is offered to improvements by a certain section of our small cultivators. These persons with their queer and obstinate notions about marketing conditions provide this country with a serious problem. Some believe, it appears, that should Jamaica withhold its supply a coffee famine would ensue abroad.

The History of Coffee.

The following are a few of the romantic accounts connected with the history of this interesting plant. It is more than 1,000 years ago since it was introduced into Arabia from Abyssinia. In Arabia the Mohammedans used it to prevent sleep during their prolonged religious services; but the Priests found this out and forbad the use of coffee as a beverage. The penalty was severe punishment, in spite of which the drinking of coffee kept on increasing. In Constantinople the religious body also prohibited its use, the Turkish Government chipping in with heavy duties. By the 16th century, however, the coffee was widely used. Readers of history will recall the reign of Charles the Second of England, who laboured strenuously to abolish the coffee houses because he held that they were meeting places for traitors: still the business flourished.

The use of coffee, therefore, is an old custom and we must credit those who are engaged in the trade abroad with an accurate knowledge of its best qualities, more so than many of us.

It is said that more than three-quarters of the world's coffee have come from one plant which in the year 1690 was sent from the Dutch East Indies to the Botanic Garden at Amsterdam. When this plant developed, plants from its seeds were sent all over the West Indies, and South America with the result that thousands of acres are at present under cultivation.

It is said also that in the year 1717 some plants were sent to Martinique from France, that all except one were lost on the long voyage owing to a scant water supply; but an officer of the French Army divided his water supply with the one plant, and to him we are indebted for the coffee industry of the West Indies. The plant was introduced into Jamaica in 1728 over 200 years ago, reaching Porto Rico, Santo Domingo, Cuba, and the Spanish possessions on the mainland about the year 1750.

Preparation for Market.

There is very creditable work being done on some holdings so far as the preparation for market is concerned, a survival of our Prize

Holdings Competition in connection with which much attention was devoted to "proper arrangements for the curing and storing of produce."

A comparatively large amount of our yearly crop which finds itself into the hands of local dealers, is made up of a mixture of immature beans, blighted ones, and ripe ones. The bulk is in many cases cured on the mere surface of the ground which unavoidably is then wet, because the crop ripens during the rainy season. It is not that any foreign matter is introduced into the product, but the outer covering naturally reaches a stage of decomposition before the actual drying begins.

Immature beans, stale berries, and improperly fermented beans keep the silver skin clinging to them. The silver skin causes burning when the beans are roasted, and bitterness when the beverage is prepared. To avoid this the cured beans must be submitted to prolonged peeling, (milling, or hulling) which leads to overheating which in turn spoils the colour of and disfigures the beans.

Keeping the coffee in contact with the damp earth, as described above, destroys the very principles for which the product is prized both in appearance, the aroma and the taste.

Among the wrong practices is the heaping of several days' gatherings of the berries, one on top of the other, resulting in excessive fermentation which also destroys the bluish colour which is an important point in the marketing of coffee.

Another evil practice is to store the coffee where it may be reached by an odour from its surroundings; as the coffee takes in such smells. At the "Coffee Works" (factories) the partially or cured product is is stored in "huts" which are specially constructed around the barbecues for the sole purpose. On the small farmers' holding a clean dry store-room is essential.

A frequent complaint is that the small settler who here and there cures his coffee properly must accept the same price as one who does not, on the ground that there is not enough to make a consignment. Now that the J. A. S. offers a pulper for £3 17s. 6d. the members of a Branch can with little difficulty subscribe to purchase a pulper. When their product is cured they can pool the different lots, and sell to the highest bidder. A few Branches in this Instructoral District have opened such a list.

Proper Curing.

The "Works," or factories, on the hills of St. Andrew, have got this matter of curing, storing, and preparation for market down to a fine point,. They purchase a large quantity of settlers' coffee in the "cherry," with advantage to the settler who by himself would not be able to bring the article up to so high a standard as the factories.

The only berries to be picked are those that are quite ripe. The phrase "cherry berries" is suggestive. The picked coffee should not be left more than 24 hours before it is pulped, or the parchment, which is the pulped beans, will dry with a brown colour. From the pulper the beans pass into a small concrete tank generally built in the shape of a large box. This is known as the fermenting tank. While the time in which to keep the coffee fermenting depends on the temperature of the surrounding atmosphere, yet generally the duration is about 48 hours. The small grower may ferment in a large box, or other wooden vessel. Bear in mind that over-fermentation will affect the bluish, or horn-green colour natural to the coffee.

Not only does the fermenting make it easy to remove the gummy, sugary matter which coats the freshly pulped beans, but the process as in the case of cocoa, breaks down the condition that tends to bitterness or what is sometimes referred to as newness. The washing is generally done in the tank where water is poured on till the coffee is covered to about twice its own depth. The coffee is then stirred with a wooden rake or with rakes. The light seeds that float to the top are removed and dried separately as inferior coffee. Clean water should be added and the process repeated till the beans are all clean. Tanks are so constructed as to allow the water to flow through a sluice gate situated at the lowest part of the tank when the washing process is completed.

From the tank the wet coffee is transferred to a draining barbecue where it is allowed a couple of hours or so to drain off. It is then transferred to the barbecue, or barbecues, and spread out, and kept stirred so as to have all the moisture dried off, and be put up in the afternoon.

Once the coffee has started drying, neither rain nor dew should be allowed to fall on it. Each morning it should be put out. after the barbecue is made quite clean, and is well warmed by the sun. Experience will prove that it saves time to have the barbecue swept after each day's sunning, leaving the warning only for the next day.

The parchment coffee can be well cured in two weeks, while curing in the husk takes fully a month normally and sometimes two months with the consequent holding up of marketing, more labour, and extra storing accommodation.

Well cured coffee can be threshed by rubbing it with one hand in the palm of the other as a trial. It is then in a condition to be kept a year or more before milling. On the day when the coffee is to be milled it should be spread out for 2 or 3 hours on the barbecue and warmed before the milling begins. Coffee properly cured is brittle, hard and of a horn-green colour and a pleasing smell. After the milling the coffee is winnowed and polished. At the factories it is sized, that is classified according to size of beans into No. 1, No. 2, No. 3, etc. After this it is spread out on tables engaging sometimes 50 to 100 women who separate the broken and discoloured beans.

Jamaica's problem now remains to be solved. Shall it be by factories, pooling, or drastic legislation?

AUTHORIZED PERSONS.

Return of Arrests to Quarter ending 30th June, 1935.

St. Andrew	2
St. Thomas	1
Portland	5
St. Mary	10
St. Ann	6
Trelawny	7
St. James	10
Hanover	2
Westmoreland	2
St. Elizabeth	5
Manchester	5
Clarendon	22
St. Catherine	15

NOTES.

The Canadian Trade Commissioner has kindly provided this Society with a copy of the Revised Regulations under the Fertilizers Act of Canada which came into effect on 1st July, 1935. Interested parties may apply at the Society's Office where it can be seen.

Ed.

WANTED.

The Editor would be extremely obliged to receive any unwanted copies of the Journal of the Jamaica Agricultural Society for **April 1933** for which a sixpence will be paid.

GOVERNMENT NOTICE RE ISSUE OF CERTIFICATES OF ORIGIN FOR HONEY FROM JAMAICA TO BE IMPORTED INTO THE FRENCH ZONE OF MOROCCO.

This Government has been in communication with the Secretary of State for the Colonies, in regard to the importation of Jamaica Honey into the French Zone of Morocco. It is a requirement of the Government of the Zone that bees, honey and wax to be imported must be accompanied by a Certificate of Origin and of non-infection to the effect that for the last six months there have been none of the following diseases in the country of origin viz.: foul brood, acariosis (acariose) or nosemosis (nosèmose).

Arrangements have now been made for the Medical Officer of Health of the Borough of Poplar, in which the business of Messrs. Maconochie Bros., importers of this commodity, is situated, to issue a Certificate attesting that honey from Jamaica bottled by that firm is the honey in respect of which the Jamaica Certificate accompanying it was issued and that the re-packing process gave rise to no possibility of infection.

Under the above arrangements it will be necessary for Certificates by the Jamaica Authorities to accompany consignments of honey to Messrs. Maconochie Bros.

Certificates will be issued by the Director of Agriculture but can of course be issued only when Jamaica is free from contagious bee diseases.

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all milk used in the household should come from healthy cows, fed in the country, on rich pastures, that it should be perfectly pure and safe, with all vitamins and nutritious elements left intact.

This can only be attained where best organisation and conscientiousness co-operate. In this respect, the name of **Nestle's** means full guarantee. Indeed the Nestle Company is always on the level with the most up-to-date scientific methods for the manufacture of milk products. ***Therefore*** .....

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We gladly test soils for acidity, available nitrogen, phosphoric acid and water soluble potash, and supply mixtures suitable to the needs of the individual buyer. We don't sell blindly nor wish you to buy blindly.

We count among our customers some of the best known Planters in Jamaica.

For Quotations apply, **J. M. WHITESIDE, Falmouth.**

THE EXTENT OF THE DROUGHTS.

(*Extract from "Jamaica Weather Report," April,* 1935.)

The mean monthly rainfall was very deficient, being less than half of the average. This deficiency was most marked in the North-Eastern and Northern Divisions which were very dry. The West-Central Division had a fair rainfall, though not up to the average, and the Southern Division had nearly half its average.

The greatest total fall for the month was 10.62 inches at Whithorn in the West-Central Division and the heaviest fall in 24 hours was 4.90 inches at Sav.-la-Mar in the Southern Division.

No rain fell at the following 32 stations:—

North-Eastern Division—Lennox, Albany, Quebec and Glengoffe.

Northern Division—Port Maria, Wentworth, Oracabessa, Huddersfield, Drax Hall, Liberty Hill, Runaway Bay, Knapdale, Home Castle, Duncans, Clarks Town, Falmouth, Wales, Adelphi, Success, Rose Hall, Cinnamon Hill, Tryall, Running Gut, Spring Estate and Riversdale.

Southern Division—Yallahs, Plumb Point Lighthouse, Spanish Town, Milk River, Torrington and Fort Charles.

The mean number of rainy days was only 4, as compared with the average of 9. Darliston, in the West-Central Division, had most rainy days—13.

The mean rainfall in each parish is given below, compared with the 10-year average, from which it will be seen that there was marked deficiency in every parish, particularly the eastern parishes, also St. Ann and St. James. Westmoreland with 5.52 ins. had the most rain; Manchester was next with 3.35 ins., whilst Kingston was the lowest with only 0.05 inches.

Parish.	1935.	10-year average.	Parish.	1935.	10-year average.
	Ins.	Ins.		Ins.	Ins.
Kingston	0.05	1.08	St. James	0.87	5.21
St. Andrew	1.13	4.45	Hanover	2.04	6.13
St. Thomas	0.91	4.67	Westmoreland	5.52	7.85
Portland	1.08	10.45	St. Elizabeth	2.74	6.97
St. Mary	0.45	6.63	Manchester	3.25	5.07
St. Ann	0.50	5.62	Clarendon	2.30	4.48
Trelawny	1.75	5.18	St. Catherine	0.93	4.93

City of Kingston.

The total amount of rainfall for the month of April was exceptionally small, being only 0.01 of an inch. But in April, 1873 and April, 1920, during the past 65 years, there was no rain recorded. The upper boundary of Kingston, however, gauged 0.13 of an inch with three rainy days.

WEATHER REPORT, JUNE, 1935.

The extract given below from the Jamaica Weather Report for the month of June, 1935, shows clearly that we have had an abnormally dry half-year. The areas most affected extend from Portland to St. James on the northside and from St. Thomas to St. Elizabeth on the south. The two extreme westerly parishes, Hanover and Westmoreland were fortunate in having better weather. Ed.

The mean monthly rainfall was, for the fourth consecutive month, below normal. The West-Central Division was slightly above the average, but all the other Divisions were deficient.

The greatest total fall for the month was 24.99 inches at Cascade in the Northern Division, and the heaviest fall in 24 hours was 4.10 inches at Boon Hall in the North-Eastern Division on the 28th.

No rain fell at Orange Vale, Agualta Vale and Water Valley in the North-Eastern Division.

The greatest precipitation occurred on the 9th, 19th and 28th, but the rainfall generally was fairly well distributed, the mean number of rainy days being 10, which corresponds with the average for the month. Cascade and Kendal in the Northern Division had most rainy days—28 each.

The mean rainfall in each parish is given below, compared with the 10-year average. It will be observed that St. Andrew, Hanover and Westmoreland were above normal, while all the other parishes were below. Hanover was highest with 13.13 inches and Kingston lowest with 1.95 inches.

Parish.	1935.	10-year avge.	Parish.	1935.	10-year avge.
		Ins.			Ins.
Kingston	1.95	2.42	St. James	5.70	6.85
St. Andrew	5.67	4.21	Hanover	13.13	10.83
St. Thomas	4.10	8.64	Westmoreland	10.74	8.58
Portland	2.88	8.19	St. Elizabeth	2.38	4.46
St. Mary	3.46	4.85	Manchester	2.83	6.62
St. Ann	3.00	4.67	Clarendon	2.66	5.31
Trelawny	4.15	5.41	St. Catherine	2.71	5.71

The total rainfall for the first 6 months of the year is given below, compared with the 60-year average, and shows a deficiency of 7.80 inches. It will be observed that February, which is the driest month of the year, was the only month in which the average was exceeded.

Month.		1935.	60-year average.
		Ins.	Ins.
January	..	1.64	4.00
February	..	4.77	3.13
March	..	3.10	3.35
April	..	1.93	4.77
May	..	6.54	8.77
June	..	4.77	6.53
	Total	22.75	30.55

City of Kingston.

The total rainfall for the month of June was 1.79 of an inch, representing about one-half of the 60-year average of 3.51 inches. There

were four rainy days, as against the 49-year average of 6.4 inches. The greatest fall in 24 hours was 0.85 of an inch, on the 4th. The upper boundary of Kingston gauged 3.33 inches with five rainy days.

The following gives this small monthly rainfall, along with their corresponding 60-year averages in inches.

Month.	Rainfall.	60-year average.	Month.	Rainfall.	60-year average.
January	0.95	0.87	April	0.01	1.17
February	0.44	0.61	May	0.23	4.02
March	0.40	0.94	June	1.79	5.51

The total rainfall for the first six months of the year as above shews 3.83 inches, as against the aggregate average of 13.12 inches, shewing that the actual fall was less than one-third of the possible.

(*Extract from American Hortigraphs and Agronomic Review, July-August,* 1935.)

CITRUS.

Ever Eat Baked Grapefruit? Try it.

The Dining Car Service of Pensylvania Railroad serves baked grapefruit, an exceptionally tasty way of preparing this citrus fruit for the table. Mr. John G. Finnegan, General Superintendent of the Service, gives the recipe; Cut grapefruit in half; loosen hearts; sprinkle teaspoonful of sugar over the half; add teaspoonful of cooking sherry; place small piece of butter over centre core so that it will melt down into various compartments; bake 10 to 15 minutes in hot oven. Serve warm.

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Selling Agents for Beacon Matches: *Lascelles deMercado & Co.*
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SEA ISLAND SHIRTS.

Extract from the West India Committee Circular, June 6, 1935.

Mr. Austin Reed's Enterprise.

Austin Reed, Ltd., is, as most readers must know already, an important firm of outfitters with twelve shops in London, and branches in Glasgow, Birmingham, Liverpool, Leeds, Manchester, Sheffield, Bristol, Belfast, Norwich and Oxford.

Their Regent Street shop was en fete on May 28th, when Sir Philip Cunliffe-Lister, Secretary of State for the Colonies, paid it a visit to inspect a special display of Sea Island cotton shirts, pyjamas and underwear which had been staged. Sir Philip and other visitors were conducted all over the establishment and were subsequently entertained to luncheon by Mr. Austin Reed, chairman of the firm, at the Cafè Royal opposite.

After the loyal toast Mr. Reed, addressing the company, said: "Some time ago when we embarked upon the production of Sea Island cotton shirts, I had very little idea that we were going to attract to ourselves so much attention. The words 'Sea Island' as applied to cotton have been associated for many years with a fine grade of cotton goods, which for some reason seems to have been surrounded by a mystery which to retailers seemed quite insolvable. Until I went to the West Indies twelve months ago I had no knowledge of where it was grown, and I do not think that in this respect I was more ignorant than the majority in the men's outfitting trade. But I did find that a number of planters were definitely interested in the production of cotton, that Sea Island cotton was a fine, high-grade cotton, finer than anything being grown in Egypt, and that the market for it was exceedingly limited.

"This mystery which seems to have surrounded the name of Sea Island cotton is one, which if we can do anything to disperse, we shall feel that we have been of some little public service. Of course we cannot claim that we have acted in an altruistic spirit. We are commercial people, and we think we know a good thing when we see it. We are certain that in pushing the sale of this cotton we are on to a good thing. Why it has taken so long for the retail trade to discover it I don't know.

"There is no doubt that Sea Island cotton is an exceedingly fine product, produced almost exclusively in the British Empire, and one which can be made into a variety of articles which I feel sure would find a ready sale if the British public and others only knew about it. This is the crux of the whole question. The public have never been educated. The retailers have never been educated. In fact, we retailers have unwittingly sold fine cotton goods as Sea Island cotton when as a matter of fact they were made of fine Egyptian cotton. But now we find that we can produce a shirt made of 100 per cent. Sea Island cotton, with two collars to match, for 15s. 6d. Last year the same shirt cost 21s. and the same thing applies to underwear. To-day you have had an opportunity of seeing a very wonderful material suitable for sports shirts. When I saw this for the first time I thought it was silk and wool. Even allowing for the fact that I have very little knowledge of this sort of material, to imagine that a cotton material is made of silk and wool testifies to the fact that it is a very wonderful proposition."

ontinuing, Mr. Reed said he thought that he was right in saying ; during the last thirty days his firm had spent more money in cating the public to think in terms of Sea Island cotton than had n spent during the previous thirty-five years.

We believe that we are going to get it all back. We believe that s going to pay us dividends. We believe that in talking about it we 'e got an article that is so outstandingly good that it will create big s for us. There is not a shirt being offered to the British public t can in any sense compare with this one which we are offering for . 6d. Our trouble will not be to sell the goods, but to get enough ods to sell. We have just placed orders for sixty miles of Sea Island ton cloth to be manufactured into shirts alone. But that will not enough. We could have sold a hundred and twenty miles. And s is after all only one firm. When you think of the tremendous tput of shirts in the country, our output is a very small percentage. it I am convinced that a very useful percentage of the whole could this high-grade cotton shirt.

"I very much regret that on the goods selling to-day there is no ention of the fact that they are made from British Sea Island cotton. here should certainly be a registered mark. Sir Algernon Aspinall iowed me a proposed mark when I first met him. If we could have aited until the mark had been registered we should have done so, ut we had to go ahead without it, but when there actually is a registered iark in existence we shall be delighted to put it on all our Sea Island otton goods. I hope that that mark will stand for a quality which re as Britishers can be proud of. For there is always the possibility f putting on the market an inferior qualty, and it will certainly do his industry more harm than good if it descends to the lower end of he trade. British industry always thrives most when it aims highest. Vhen we go down to the lower end of the trade we always get knocked lown by the foreigner. And it is because we have this genius for naking a high grade of goods that the name 'British' has such a wonderful standing all through the world."

Sir Philip Cunliffe-Lister, who next spoke, said: "We are grateful to you for your hospitality, but we are grateful for more than that. Seven islands in the West Indies stand to-day very deeply in your debt for what you have done in order to give them a market. We do not appreciate it any the less because we realise that you have gone into the business because you thought it was good business—for we know that 'where treasure lies, there will the heart be also.'

"This whole question was gone into two years ago in the course of a review of the different things the Colonies could produce. We found that Sea Island cotton had never been much pushed, and had steadily lost ground owing to the competition of artificial silk. Then the Advisory Committee of the West Indian Sea Island Cotton Association was formed to promote the interests of these Colonies overseas, and they sat down to think what was the best way of doing this. You have said that they did not spend much money on advertising. Well, they had not much to spend! And in fact I deliberately told my friends on the Advisory Committee not to advertise. I told them they had got a very good article, and the next thing was to get enterprising firms in this country to use that article. I am glad to say that we found such firms in the weaving and spinning trades who would take it up. I told them that a few hundred pounds spent by them, or by my office, would do no good. They would have to get commercial firms interested in this, thinking it good business, and they would do their advertising for

them. Could the Committee or I have produced the cash or the advertising ability necessary for those brilliant advertisements we have just now seen and which are now going all over the world in illustrated papers? I am sure that was sound advice. The Committee won't have to advertise now. We are going to get it done for us.

"But the Association did something else, for which they and the islands themselves deserve credit. They organised the production of Sea Island cotton. They refrained from flooding the market with an unknown product, but realised that the moment when the thing had caught on would be the moment to expand. I am glad to be able to say that this 'cartel,' as we may call it, is working excellently to-day. All the producers are in agreement, and they are agreed about the selling arrangements. The extent of the acreage of production this year is almost two and a half to three times as great as it was three years ago. And it will all be sold. They are also seeing to it that only good seed is used.

"With regard to the trade mark, this matter of course takes time. Elaborate searches have to be made. But I am glad to say that it is now on the eve of registration.

"In a modest way I travel in this commodity myself. I am wearing it next my skin at the present moment. I have advertised it assiduously in the House of Commons, and at the risk of being accused of corruption I have distributed samples to the leaders of the Opposition. And I have his permission to say that you have an exhibitor in the Prince of Wales. He told me that he bought it originally because I told him about it, now he is a steady wearer of Sea Island cotton on its merits.

"It may also interest some of you to know that when the M.C.C. team went to Australia last time they wore Sea Island cotton, whenever the weather permitted. But I am sorry to say that when I dined with the West Indian team in 1933, they were not wearing it!"

Sir Algernon Aspinall, who spoke in the absence of Alderman Astley Bell, Chairman of the Advisory Committee of the West Indian Sea Island Cotton Association, said that sometimes doubts were expressed in the West Indies as to whether cruises were an advantage to the islands. Mr. Reed had shown that they were. Mr. Reed had been on a cruise, and as a direct result had taken a practical interest in the development of the Sea Island cotton industry on an extensive scale. After expressing gratitude to Sir Philip Cunliffe-Lister for the interest he had shown and was still showing in the Sea Island cotton industry he commented on the fact that lustrous Sea Island cotton had such a wonderful tensile strength that one pound of it could be spun into no fewer than two hundred and ten miles of yarn.

The Hon. Geoffrey Boon of St. Kitts spoke on behalf of the growers and said how grateful they were for all that had been done, and especially to Sir Philip Cunliffe-Lister and Mr. Reed and to the Advisory Committee for organising the marketing of Sea Island cotton. They would show their appreciation by advertising the goods among their friends.

When corresponding with Advertisers, mention the Journal of the

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EDITOR'S LETTER BOX.

Jamaica United Products, Ltd,
Office: 95 Harbour Street,
Depot: 57½ West Street,
9th July, 1935.

Glaister Baxter, Esq.,
Ja. Agricultural Society,
11 North Parade, Kingston.

Dear Sir,

With reference to the recent conversation the writer had with you, relative to the development of the corn industry of the Island, we have pleasure in advising that we are now prepared to contract with growers for at least 100,000 bushels of corn at 3/6 (three shillings and six-pence) per bushel delivered in Kingston during the coming Spring crop, and including the fall crop next year.

We are the exclusive channel through which supplies of corn will pass to the mill being erected here by Messrs. J. S. Webster and Sons for the manufacture of cornmeal from native grown corn, and are in a position to state that the proposed plant is supposed to have a capacity of 300 bags of meal per diem, which would mean about 90,000 bags per annum, requiring about 360,000 bushels of corn if the mill operated at full capacity. It is not expected for the first year or so that the mill will be called on to operate at full capacity; but it is estimated that between 80,000 and 100,000 bushels of corn will be required for the first year's operations.

This at once would provide a ready demand for more corn than the estimated present production could supply—leaving out entirely the usual domestic requirements that must be provided for—and would place in the hands of cultivators the substantial sum of about £36,000 more annually than is derived at present from the industry, if the mill operated at half capacity, and fully £72,000 if employed at full capacity.

In the year 1933 over 86,000 bags of cornmeal were imported into the Island but there is no reason why the importation of such articles as cornmeal should not be supplanted by the native manufactured article when there is enterprise and capital here to do it and keep the money in the country.

The question of getting regular supplies of corn for the mill is important, and price no doubt is the primary consideration. It is the general opinion—and one we believe you fully share—that if the price was stabilized at 4/- per bushel all the year round cultivators would be given an incentive to grow on a large scale, and there would be no difficulty in getting supplies from crop to crop. But while this may be true it happens that it would be quite impossible to purchase corn at this price for manufacturing purposes and compete favourably with imported cornmeal. It would be possible, however, to pay 4/- to growers if the Government could be induced to assist the development of the corn industry by raising the duty on imported cornmeal which at present is out of all proportion to the duty on corn.

With the hope that something can be achieved in this respect we have taken up the matter with the Government and trust they will give it their favourable consideration for the benefit of the grower and advancement of the corn industry of the Island.

Your interest in the general development of the agricultural resources of the Island will, we hope, make it possible for you to give us your fullest co-operation in our appeal to cultivators throughout the Island

to grow corn, and more corn to meet the demand that is being created for this native product; and in this connection we would very much appreciate your giving the matter the widest circulation possible among your affiliated Branch Societies, as well as a leading article on the possibilities of the corn industry of the Island in the next number of your Journal, which we hope will be in time for the planting of corn in August/September.

With the hope that we are not exacting too much from you, and our cordial thanks for all the assistance you will give in the matter.

Yours very truly.
JAMAICA UNITED PRODUCTS LTD.,
Per H. M. RYAN.

(Extract from the Jamaica Gazette, June 20, 1935.)

Return showing the approximate number of Cattle slaughtered in the several parishes during May, 1935:

Parish.	No of Cattle Slaughtered.
Kingston	884
St. Andrew	87
St. Thomas	75
Portland	155
St. Mary	140
St. Ann	220
Trelawny	91
St. James	228
Hanover	123
Westmoreland	179
St. Elizabeth	162
Manchester	259
Clarendon	135
St. Catherine	227
Total	2,965

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Fair Fermented	18/- " "
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Manchester—B	30/- " "
Manchester—A	31/- " "
Honey—White	1/6 per gln. del. Kingston
Pale	1/3 " "
Light	1/- " "
Dark	9d. " "
Kolanuts—Sound quality, well cured	5/- delivered Outport
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Sarsaparilla—Well cured, Red Roots	38/- to 40/- delivered in Kingston, according to quantity.
[illegible]—Pure and clear	6d. per lb., in Kingston

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RABBIT BREEDING.

The following is an outline of a series of articles covering the care and manage ment of rabbits in a commercial rabbitry.

I Foreword
- Introduction
- The Rabbit Industry—Prospects and Importance

II Selection of a Breed
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- New Zealand Whites
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Rabbits for Food and Profit.

By HARRY E. HEINKEL,
California, U.S.A.

Foreword by the Author.

This is the first of a series of articles relating to the various phases of rabbit keeping, their care and management, and benefits derived therefrom.

The author has made a careful, analytical study of domestic rabbits from a commercial and economic viewpoint, over a period of years. The results are contained in these articles. Many methods of feeding, breeding and management have been tested in his own rabbitry, and he has compared notes with other large commercial producers.

In presenting these articles the author invites questions from producers and others interested in the rabbit industry. All inquiries should be directed to the Editor of the Journal.

The Author.

Introduction.

Rabbits have been domesticated for many centuries. Reports indicate that they were bred in China in the time of Confucius. In Europe they were known in 1557, and France was possibly the first country in Europe to recognize their value and importance as an article of food.

There are many varieties of domestic rabbits, all of which have their origin from a common source. The different breeds are the result of "Hybrids" or "sports" which have been carefully bred for many generations until they breed true to type and color. The breeding of sports is very fascinating, but it has no place in the commercial rabbitry.

The rabbit is the cleanest of all domestic animals. They adjust themselves rapidly to almost any climate or condition, and they require less attention and room than other animals.

From a commercial viewpoint, raising rabbits is not a get-rich-quick scheme, but when good business methods are applied a fair rate of return on the investment is possible. Carelessness and slipshod methods in the rabbitry lead to ruin. The producer must be alert in building up his market for the sale of rabbit meat by advertising. His rabbitry must be kept clean, and sick stock should be isolated. Complete records must be maintained of costs and returns, breeding, and stock weights. In other words, apply the same business methods to your rabbitry as you would to any other commercial venture, and provided you begin with good stock, you should succeed.

The rabbit industry is fairly well established, and yet, there are many people who are unacquainted with the excellent quality and food value of rabbit meat. In the United States rabbit meat has its largest sales on the Pacific coast. It is estimated that as much as 2,000 tons of meat rabbits are produced annually in Southern California alone, and in addition, rabbit meat is imported from Australia and New Zealand. In 1927 California imported 434,787 pounds. More recent figures are not available. In Los Angeles, approximately 50,000 fryer rabbits are sold on the market each month. However, the markets of the central and eastern sections of the United States would not show such demands for rabbit meat. But no matter where the producer is located he must expect to build up his own market for his stock. Orderly production and marketing is essential for his success.

The prospects of the rabbit industry depend upon the producer. He must proceed cautiously, study his stock, and develop an outlet for his meat stock and the usual waste matter from his rabbitry. Everything has a sale value: empty feed sacks are usually sold back to the feed dealer, the manure, when kept separate from feed waste (of which there should be none) is in demand by nurserymen, as it is one of the best fertilizers obtainable, the dressing offal (head, feet, and

entrails) can be ground up with bran or mash and used as chicken feed. The pelts should be stretched and dried and sold to the fur dealers.

The success of the production of rabbits depends on *quality of production, quantity of production, economy of production,* and *efficient marketing.* Not one of these can be neglected.

Selection of a Breed.

The selection of a breed should be governed by market demands, but in any case the selection should be made from the general utility breeds. Fancy breeds may bring pleasure, and sometimes profit, to the fancier, but they are not suited to the demands of the commercial producer. It is best to confine one's attention to a single breed and thus the selection should be made accordingly. The following is a list of American meat and fur rabbits:

Breed.	Mature Weight.		Utility Value.
	Buck.	Doe.	
American (blue and white)	9	10 lbs.	Meat, fur, show
Belgian Hare	8	8	Meat, show
Chinchilla Giant	10	11	Meat, fur
Chinchilla, Standard	7	7½	Fur, show
Flemish Giants (gray, blue, black, white)	13	15	Meat, fur, show
Flemish Giantrex (all colors)	11	11	Meat, fur
New Zealand (red, white)	9–10	10–11	Meat, show hatters, pelts, fur

Of the above breeds the ones used most by commercial breeders are the Chinchilla, Flemish, and New Zealand. The utility of a breed should govern its value, and in addition the breed should possess the ability to maintain health and vigor under commercial conditions. The meat should be white, fine-grained, firm, and of good flavour. The dressing percentage should be not less than 50%, and of fine bone. The young should reach market weight (4 pounds, live) at 56 days of age. They should be good breeders throughout the year, producing a large litter four times each year.

In analyzing the three most popular utility breeds we will consider first the Chinchilla. This is an excellent rabbit but its pelt is not in such demand as the white. The Standard Chinchilla is rather small, and it requires longer time for the young to reach market weight. The Giant, too, has large bones which does not make it desirable for the meat trade. That which is true of the Chinchilla is also true of the Flemish.

The New Zealand White is possibly the most popular of all utility breeds. Both the White and Red New Zealands are well suited to the beginner, although some producers consider the Whites somewhat superior. For size the White New Zealand is often crossed with the White Flemish Giant. In doing so the bone structure must be watched or the fine bone of the New Zealand is replaced with the larger bone of the Flemish. I know of instances where a White New Zealand doe bred to a White Flemish Giant resulted in the doe bringing a litter of [illegible] to a market weight of four pounds each in seven weeks. On

e other hand, it is a general opinion that the Flemish Giant requires ore feed and thus anything gained in the litter is lost in feed costs. is best to breed straight White New Zealands which is the practice the large commercial rabbitries.

The White New Zealand was developed in California. It is very entle; its fur is of excellent quality and compares favourably with the Himalayan, and it is a prolific breeder and a good mother. It is a ery pretty animal with its beautiful white fur and pink eyes. The mature bucks average 9½ pounds and the does average 10½ to 11 pounds. ny one interested in a good utility breed should give serious consideration to the White New Zealand.

Another vital factor to be considered in purchasing breeding stock s the production record. I believe that far too much attention is given to standards of color and type than to the rabbit's production record. A rabbit that wins blue ribbons but produces only 50 pounds of meat stock in a year is certainly of less value than one which wins no ribbons but produces 125 pounds of meat stock in a like period. It is quite alright for the fancier to display his ribbons, but the commercial breeder must show quality and quantity on the production record. I do not wish to imply that quality in color and type should be ignored. On the contrary, the commercial breeder should always maintain the standard, but the production record should be of paramount importance.

The following is an example of what I mean by show stock versus production stock: About a year and a half ago I bred a White New Zealand doe to a very valuable Caster Rex buck in order to develop a White Rex. The doe kindled a litter of 12 of which I destroyed 3. Of the remaining 9, 5 were Caster Rex and 4 were white. Of the latter only one was a doe which I kept intending to breed her back to her sire. I later on changed my mind and when she was six months of age bred her to a pedigreed White New Zealand buck. She has now been breeding for a year during which she produced 130 pounds of meat stock. She would be disqualified in any show, and, of course, I do not keep any of her offspring for breeding stock as I have others who equal her record. I have a young doe which won a blue ribbon as a junior and who produced 44 pounds in three kindlings—she will not be bred a fourth time. These facts induce me to stress the production records rather than the ribbons.

And finally, in the selection of your foundation herd, insist upon perfection in standard as to color and type, and insist upon knowing something of the production records of the stock. Much time and money is lost weeding out undesirable stock, and the breeding out process is equally expensive. This does not alone apply to your breeding does but to the herd buck as well. Experience has taught breeders that the buck is as important as the doe. This factor is often neglected. The importance of the buck will be fully treated under the heading of breeding.

ANNOUNCEMENT.

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PIMENTO.

We publish hereunder an interesting review of the Pimento market published by Messrs. D. J. Scott and Co., Lombard Street, London, which should be of great interest to producers. We of course do not hold ourselves responsible for its contents or its suggestions regarding German reciprocal trade. The international position does make the the matter a very knotty problem..

Ed.

Report on the Jamaica Pimento Situation relating to Business by Compensation and Barter with Germany, the General Market conditions and outlook for the new Crop, 1905.

Issued by D. J. Scott & Co., 38 Lombard Street, London, E.C.3.

Review of the Jamaica Pimento situation mainly in relation to Trade with Germany.

The Statistical Position and probability of Higher Market Prices due to a Rust Disease extending over a wide area and causing great destruction to the trees.

It has been our custom to make half-yearly, and occasionally more frequent reports on the position of this commodity, with a view to rendering such assistance to our friends in Jamaica as may be the means of creating more activity and sustaining a reasonable price level.

We, however, cannot recollect any period in the history of the Pimento trade when the prevailing conditions and future outlook showed so many puzzling features. On the one hand, we have reports from Jamaica of the alarming development of the disease among the Pimento trees, which made its appearance last year in two parishes, and is now attacking the most important Pimento districts. Secondly, the financial and currency difficulties in Europe have increased to such an extent, especially in Germany, that all imports of foodstuffs and raw material are prohibited except by means of Compensation or Barter, i.e., the exporting country abroad must buy German goods to the equivalent value, or more than the value, of raw material or foodstuffs exported to Germany.

Compensation and Barter.

The difficulties in adapting ourselves to this new set of circumstances are immense. The first and most important is to find a market in Jamaica for the German goods, and all producers and dealers of Pimento and Jamaica produce generally should prevail upon the importing merchants and others in the island to buy such German goods as they can sell, or otherwise employ, to advantage. The second, and probably the most difficult aspect is that of arranging the import license with German buyers, who are not concerned with the export side. For this purpose our Mr. Cyril C. Henriques has recently spent some days in Hamburg, and has so far concluded satisfactory arrangements with an organisation specially created for dealing with the sale of German goods through us.

Before proceeding to review the Pimento situation and reporting on the outlook for the marketing of the new crop, we think it might be interesting to our friends in Jamaica to be in possession of the many

ts concerning the chaotic condition of European international trade, th special regard to the action taken by Germany to obtain foreign rrency for the purchase of raw material abroad and the payment debts which have been temporarily suspended. The trade agreeents between the United Kingdom and British Colonies with Germany, ferred to in our previous circulars, have all broken down completely id entirely ceased to function for some months past.

The writer of this report (our Mr. Henriques), had an opportunity be present at a meeting of the Import and Export Merchants Section the London Chamber of Commerce on March 2nd last, where the iews on this section of the trade were expressed and carefully examined y the Chamber. The meeting was unanimously forced to the conlusion that nothing could now be done by this country which could revent trade by compensation or barter between Germany and any ountry including British Colonies, and for the time being it must be eft to the United Kingdom and all British Dominions and Colonies o make the best bargain they can by direct negotiations with German nanufacturers and exporters. Shortly after this meeting we took up he matter personally with the Board of Trade. and they are of the pinion that the British Dominions and Colonies must do the best hey can under present circumstances by these direct arrangements with Germany. We gathered from the Board of Trade that the difficulties in protecting and fostering United Kingdom trade with Germany were so great, and its value to large industries so important that no arrangement that might include the Colonies could be contemplated at this juncture.

The following quotation from the report of the London Chamber of Commerce, on this question of German trade by compensation and barter, might prove useful to our friends in Jamaica when considering the export side of their produce, on which the whole structure of the economic advantages to the island rests. In referring to the policy of the Dominions and Colonies and that of the German Government to extend their trade by compensation and barter, the report says:—

> "For example, the Government of South Africa, in order to induce Germany to buy wool which that country declared she had no money to pay cash for, has entered into a Barter Agreement under which Germany can purchase up to £2,400,000 of wool, and this will be balanced by the Union of South Africa purchasing goods to the same amount from Germany. This arrangement may be extended to other commodities—and other countries."

These arrangements on the part of Germany with other countries have since been extended to countries over the whole world whence she requires foodstuffs or raw material. To quote only a few outstanding examples: Agreements have been made between Germany and Spain, which includes the Canary Islands, for bananas; with Ceylon, for dessicated coconut and cinnamon; with Singapore, for pepper; with British Malaya, for rubber; with Trinidad, for asphalt and cocoa; with Brazil, for coffee and cotton; with Australia, for meat, wool, etc. (in this case Germany supplying commercial aeroplanes besides other merchandise); with Chile, for honey; and numerous other countries for various commodities. All these arrangements or agrements function satisfactorily, as they are devoid of any cumbersome governmental interference in the countries exporting to, and buying from Germany. The business is done between the merchants in both countries, but there is strong Government control in Germany that

regulates the extent of the import licences, so as to prevent all possibility of any goods being sent into the country in excess of immediate requirements, the object being to prevent foreign currency or money being locked up in any material, which may be needed for the purchase of something that is considered of more vital advantage.

The system works quite satisfactorily, and the Government control only becomes irksome to those not previously engaged in the particular trade. For instance, no merchant in Germany who had not previously imported Pimento, would be permitted. to receive a licence for the importation of the smallest quantity. The extent of licenses to import any commodity is governed by the volume of business done in the product by the individual exporters with German importers in previous years. The entire import business is hedged around with difficulties that make it ijmpossible for anyone outside the particular trade to come into the market.

It is scarcely necessary for us to impress upon our friends in Jamaica the necessity of encouraging the sale of German goods whenever possible, not only in order to sell their Pimento to Germany, which is by far the largest buyer of this commodity, but, by having a moderately free market in Germany for this product, to secure a much higher price level which will be obtainable in every market of the world.

The Pimento Situation.

We shall now proceed to consider the Pimento situation as a whole and review the present outlook. In spite of the restricted European markets, and especially the German market, until the restriction of imports into that country is removed by export of German goods to Jamaica, it is impossible to ignore the serious condition of the present crop conditions which are so alarmingly affected by the Pimento disease, which is rapidly spreading. Had we at the present time a free European market the knowledge of the effects of this disease, which we havemade known to all our European buyers of this commodity, would, we conservatively estimate, have affected its market price by causing an advance of at least 25% above what it is to-day.

Less than two months ago the price of Pimento had fallen to the lowest point we have known during recent years, viz., 17/- to 18/- per cwt. c.i.f. terminal ports. This was directly caused by the absolute restriction of imports into Germany, which is still maintained except by the sale of German goods, the proceeds of which may be used for purchasing Pimento under licenses. With speculative buying in London on the strength of reports of the disease from Jamaica, prices advanced to 26/- among the speculative groups of "bears" and "bulls." But as it is now feared there will be no free outlet in Germany, prices have reacted to 23/- for the near position and 25/- for the distant, i.e., July and August or September. These prices are more or less based upon the equivalent of the New York market; for the time being the London speculators' interest will follow the trend of prices in that market. There is actually no market in Europe at these prices. Future prices for Pimento must, therefore, depend upon the new crop conditions and the extent to which the production will be reduced as a result of the effect of the disease.

According to the figures of exports of Pimento from Jamaica issued by the statistical department of the Collector-General, the quantity Pimento shipped directly to Germany during last year (1934) [illegible]nted to 2,359,938 lbs., which is equivalent to about 16,000 bags;

ut the actual importations were about 37,000 bags the excess being ccounted for by indirect shipments made via France (Havre for orders). 'rom this total of 37,000 bags, according to the German statistical uthorities, 17,000 bags were re-exported from Germany to other European countries, so that it must be taken that about 20,000 bags were bsorbed by the German market as against their usual consumption of bout 35,000 bags. The market was actually starved of Pimento, but he Germans have resigned themselves to sacrifices in order to restore he financial stability of their country. In considering these figures, he fact that the quantity of 20,000 bags actually absorbed would have een further reduced if higher prices had prevailed, must be borne in mind, as the import restrictions affected the value and not the volume. Consequently we must emphasise the point that, as the restrictions fixed for the coming season are more stringent, depending entirely upon the value of German goods exported to Jamaica, every effort should be made to induce the purchasing of such goods in Jamaica.

The total exports of Pimento during 1934 amounted to 12,229,280 lbs., the equivalent of about 82,000 bags. This quantity is far in excess of what is has been for several years past, and, in comparison with the year 1933, the exports of which were 9,101,329 lbs., say 60,000 bags, would indicate a greater consuming demand for the commodity. But an analysis of the quantities shipped to various countries makes it clear that the conditions during 1934 were abnormal in the respect that they do not reflect a condition of affairs on which one can rely, and are not a guide on which a constructive policy can be based during the coming season.

We conclude from the analysis we have made that, owing to the extraordinarily low price that prevailed during the 1934 season, resulting directly from the German import restrictions, very large quantities of Pimento were brought by certain countries in excess of actual requirements. This was very noticeable in Scandinavia, the Balkan States and the Near East. Syria imported about 3,000 to 4,000 bags as against a normal consumption of 1,000 bags; Roumania about 1,000 bags as against 500 bags, and Sweden about 2,000 bags as against 1,000 bags, to name but a few. It is unlikely that the same rate of increase of imports over normal requirements will continue this year if prices are considerably higher during the coming season.

The German situation is rather different. That country is in great need of Pimento, but the trade is not allowed to pay anything above what the German Government describes as international prices, which are carefully studied. Purchases are not permitted at prices above the market. Consequently any advance in price that may take place should apparently have no effect on consumption; but as the amount of foreign currency available for purchases of Pimento will depend upon the sale of German goods, it will be in the interest of everyone engaged in the trade to encourage the purchasing of these.

At the outset of this report we remarked that we were puzzled over the situation. We have now stated the main facts in our possession which account for this conclusion. No one at this juncture can foretell to what extent production will be limited as a result of the Pimento disease, but that it will be a small crop appears to be a foregone conclusion. The economic conditions in the United States of America are not likely to reduce their average annual purchases of about 15,000 bags, and if we eliminate Germany and other European countries, where import restrictions are in force, the marketing of a further 15,000 bags may be regarded with certainty. There is still a carry-over

stock in Europe, which we estimate at about 25,000 bags, the larger portion of which is held in Hamburg, and it is probable that about 10,000 bags may still be held in Jamaica from the last crop. On the basis of these estimated figures, it should not be difficult for our friends in Jamaica to formulate a selling policy for the best results to be obtained during the coming season. But the determining factors as to a future price level are:

The effect of the disease on production.

The sale of German goods in Jamaica.

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POULTRY NOTES.

There is a very peculiar idea among poultry keepers that there is an especial virtue in feeding oats to poultry. Without doubt hulled oats fed to young chicks is a very wholesome feed, but it is very doubtful as to whether there is any virtue peculiar to oats that would justify the additional cost.

We have always held that feeding poor oats—and we get little else in Jamaica—is definitely bad business, both from the standpoint of the food value for the money spent and also there is the abnormally high fibre content of the grain, the kernel representing such a small percentage of the whole.

We have just come across a very enlightening experiment carried through concurrently at five different Poultry Experiment Stations in Germany, which appears definitely to prove that there are no special virtues over and above that possessed by other grain in oats, for feeding poultry.

Ed.

CITRUS EXPORT REGULATIONS.

Regulations relative to the Exportation to New Zealand of Citrus Fruit made by the Governor in Privy Council under Section 13 (11) of The Agricultural Produce Law 1926 (Law 19 of 1926) on the 21st June, 1935.

1. The total quantity of oranges to be exported from Jamaica to New Zealand during the period 1st October, 1935 to 15th April, 1936 shall not exceed 48,000 boxes.

2. No person, firm or corporation shall export or attempt to export oranges or other citrus fruit to New Zealand except under a permit first had and obtained from the Chief Inspector of Produce for every shipment of such fruit which said permit shall be issued in accordance with Regulation 4 of these Regulations.

3. Every person, firm or corporation desiring to export oranges or other citrus fruit to New Zealand shall make application for a permit in writing to the Chief Inspector of Produce not less than 14 clear days prior to the date of sailing from Kingston of the vessel by which such fruit is to be exported, and such application shall state:

(a) the name of the exporter;
(b) the vessel by which it is desired to export;
(c) the number of boxes of oranges and/or other citrus fruit for which permission to export is desired.

4. Every such application shall be considered by not less than three members of the Advisory Board appointed under Section 18 of the Agricultural Produce Law, 1926 (Law 19 of 1926) (hereinafter called "the Board") and in the event of the Board deciding to grant the application they shall authorise in writing the Chief Inspector of Produce to issue a permit for the export of the whole or any portion of the quantity stated in the application. If the Board decide not to grant the application, the applicant shall be so informed in writing.

5. In the event of a person to whom a permit has been issued as aforesaid being unable to ship the full quantity of oranges or other citrus fruit stated in the permit by the ship specified therein, he shall forthwith notify the Chief Inspector of Produce who, in his discretion, may allocate corresponding additional quantities to any one or more of the persons, firms or corporations to whom export permits have been issued for shipment by the same vessel.

6. No person, firm or corporation shall export or attempt to export oranges and other citrus fruit to New Zealand during the period 16th April to 30th September in any year.

7. An Inspector of Agricultural Produce shall have power to prevent the exportation to New Zealand of oranges or other citrus fruit for which permits to export have not been issued in the manner provided by these Regulations.

8. Nothing in these Regulations contained shall be construed as being in variation, alteration or rescission of any of the existing Regulations relative to the buying, selling and exportation of citrus fruit which were made by the Governor in Privy Council on the 9th day of April, 1934 save in so far as these Regulations purport to regulate the quantities of citrus fruit to be exported to New Zealand.

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BRANCH NOTES.

All Reports received are acknowledged in this section of the Journal. This month we have only been able to put in print Notes from Branches who have not yet had a publication this year.

Branch Secretaries should **write on one side of the paper only.**

[Ed.

PORTLAND: Craigmill.—Meeting 4th June. Present: Messrs. J. T. Lowe, President; Instructor A. T. Wilmott, several members and a few visitors. The Instructor was welcomed and promised the whole-hearted support and co-operation of the Branch. He replied suitably. Five delegates were appointed to represent the Branch at the Special Conference of the Portland Branches Associated. Rev. T. Lawrence was appointed delegate to the Half-Yearly General Meeting of the Society. Resolutions re the monthly meeting of the Committee of Management and Half-Yearly Thanksgiving Services by the Branch were passed. Authorised Persons reported on work. Their handcuffs produced for inspection were in good condition. Minor matters were dealt with and the meeting terminated.

A meeting was also held on the 16th July It was decided to subscribe to the Silver Jubilee Fund, as suggested by the Parent Society. Other business was deferred. The National Anthem terminated the meeting.

Buff Bay P.O. (REV.) T. LAWRENCE,
Secretary.

Moore Town.—Meeting 4th June. Present: Mr. J. E. Harris, President; fourteen members, Instructor G. R. Graham and some visitors. Mr. J. E. Harris was appointed delegate to the Half-Yearly General Meeting. Messrs. S. Osborne, J. Osborne, H. Fuller, J. J. Crawford and A. Osborne were appointed delegates to the meeting of the Portland Branches Associated. One new member was enrolled. Minor matters were discussed and the meeting terminated by the singing of the National Anthem.

Another meeting was held on the 2nd July. Present: Messrs. J. E. Harris, President; Instructor G. R. Graham and 12 other members. The Branch decided to donate two shillings towards the King's Jubilee Memorial Fund. The President gave a full report on the Half-Yearly Meeting of the Portland Branches Associated and was thanked. The Instructor gave an instructive and interesting address on the value of the Tobacco Industry to Jamaica. He encouraged members to plant tobacco and recommended Virginia Seeds. He was warmly thanked. Minor matters were discussed and the meeting terminated with the singing of the National Anthem.

Moore Town P.O. O. N. HYLTON,
Secretary.

Central Portland.—Meeting 29th June. Present, the President, 15 members, Instructor G. R. Graham, and a number of visitors. Apology for absence was received from the Hon. H. E. Allan. Matters re (1) Water supply for Mt. Pleasant, (2) Market fence and (3) Cemetery fence were dealt with. A good report of the Portland Branches Associated was given by the delegates. Other matters dealt with were water supply for St. Margaret's Bay School and water supply for the Market. The meeting was brought to a close by the singing of the National Anthem.

St. Margaret's Bay P.O. (MISS) R. INNERARITY,
Secretary.

Regale.—Meeting 25.6.35. Present:: A. W. Campbell, President; and 16 members, It was agreed to consider the local Red Peas industry in connection with importations of American Red Peas. It was noted that the Cascade Road was being put into a better condition for the support of the Parochial Board. The meeting ended with the National Anthem

Spring Hill P.O. (MISS) G. I. CAMPBELL,
Secretary.

ST. JAMES: Bickersteth.—Meeting 4th July. Present: the President, Instructor Marr and 9 members. Report of delegate to the St. James Branches Associated Annual Meeting was given. The Branch subscribed 1/- toward this Citrus Competition Fund. The Instructor gave a "Talk" to the members regarding Red Peas and advised members to pay more attention to small crops. "The King" terminated the meeting.

Montpelier P.O. LEO. A. SPENCE,
Secretary.

Maldon.—Meeting 12.7.35. Present: The 1st Vice-President in the chair. 13 members along with the Instructor, Mr. W. D. Marr. The following items were dealt with: A propsed Social. The planned Sanitarium for Tuberculosis, to which fund the Branch agreed to subscribe. The Cornwall Exhibition. The need for a Police Station in the Maroon Town Area. The M.L.C. of the parish was to be asked for his kind attention towards the completion of the Somerton-Summer Hill Road. The reports of Authorised Persons were given. The Instructor gave a very instructive lecture on stock rearing and was thanked. The National Anthem was sung and the adjournment pronounced.

Point P.O. J. W. CHISHOLM,
Secretary.

Springfield.—Annual meeting 25th June. Present: Rev. J. A. Jones, President; Instructor W. D. Marr, Dr. F. E. Lowe, M.O.H., over twenty members and many visitors, including a number of ladies. The boys of the Springfield School enlivened the proceedings with a song. The President compared the activities of the Society for the past year with that of the preceding year. He eulogized the good work being done by the Instructor, the helpful lectures he gave from time to time and concluded by making a stirring appeal to members to join the Branch. The Secretary gave his report which recorded a decline in membership but a steady spread of scientific agricultural ideas through the community. The major achievement of the Branch for the year has been the getting of a Post Office for the District. The Treasurer's report showed an appreciable balance. Instructor Marr spoke on the "Growing of Small Crops," and showed by figures the handsome profits that may be made by growing peas, tomatoes, etc. as byproducts of our more permanent crops. The Instructor was accorded a hearty vote of thanks. Dr. F. E. Lowe, M.O.H. for the parish, and a member of the Branch, gave a most inspiring address on "Values." He showed that by placing the proper values on the right things all that is best in life can be realized. The Doctor was suit-

ably thanked. It was unanimously agreed that the officers of the past year be re-elected. Several minor matters were discussed, one being that more ladies be invited to join the Branch, and that an effort be made to brighten up the meetings by having the ladies taking part. The meeting terminated with the singing of the National Anthem.

Welcome Hall P.O. ERIC R. JAMES,
Secretary.

WESTMORELAND: Little London.—Meeting 15th July. Present: Mr. J. A. Lewis in the chair, Instructor Kelly and a very large turnout of members and visitors. With regard to the Jubilee Memorial it was decided to give a certain sum from the Society's funds to be supplemented by subscriptions to be brought in at the next meeting. There was a discussion on the arrangements for a good water supply and also a Public Dispensary. Members pointed out the great necessity of both. There was a discussion on the law governing the planting of corn in cane area. This was brought about by a visit to the district a few days before by Mr. Goodman of the Department of Agriculture and the Inspector of Plant Disease for Hanover and Westmoreland. Members expressed themselves freely on the matter. They thought the law too drastic and must work great hardship on the small man with his little holding of half an acre and his rented land of an acre or two. They would obey the law but efforts must be made to have it amended. They were willing not to plant corn in their cane cultivation but did not agree with having to plant it over two chains away as they have not a sufficiently large area of land. The speakers pointed out how much the small man depends on his little corn crop for food for himself and perhaps a houseful of little ones. The Instructor advised the planting of certain kinds of cane immune to the disease. The Instructor gave a very instructive address on the growing of vegetables ending up with a few stirring lines of poetry from one of the Agricultural Journals. The Chairman on behalf of the meeting thanked the Instructor for his fine address and asked the people to take agricultural matters seriously and to always support the Society. The meeting was brought to a close by the singing of the National Anthem.

Little London. J. R. E. HALL,
Secretary.

Mearnsville.—First regular monthly meeting held June 6. Present: Messrs. I. N. Cocker, *President, and 12 other members. A recitation was given by Miss E. Boothe and* a song by Mrs. A. McGregor. The Instructor gave an exhaustive lecture on pruning. He also gave a brief history of the Agricultural Society. He was asked to lecture on "Insect Pests" at next meeting. Other questions were asked and suitably answered by the Instructor. The President expressed thanks to the House for their keen *attention and good attendance. The meeting closed with the singing of* "The King."

A meeting was also held on July 4th when Instructor Kelly and 8 members were present. The Instructor gave the promised address on "Insect Pests." This was extremely interesting and instructive. He also read a poem "Don't Quit." The President expressed his thanks to the Instructor for the address. Meeting closed with the singing of the National Anthem.

Cave P.O. (MRS.) C. E. REID,
Secretary.

Porters' Mtn.—Meeting held June 8. Present: Mr. D. N. Clarke, President; eleven members and a number of visitors each of whom afterwards became a member. Questions re the working of the Branch were asked by the new members these were suitably answered by the Society. New members were enrolled. The meeting terminated with the singing of the National Anthem.

Another meeting was held on July 13. Present: Mr. D. N. Clarke, President; Instructor Hastings, 16 members and a few visitors, among whom was Teacher Henry of the Mt. Peto School. The Secretary introduced the Instructor to the House. The Instructor replied briefly. The rules governing Authorised Persons, were fully explained by the Instructor. The nomination of three Authorised Persons followed. Instructor Hastings delivered a very humorous, yet practical address. He emphasised the importance of cultivating coffee and citrus, and advised the House how to preserve breadfruit. He promised to visit the Branch regularly and to do all in his power to make it a flourishing one. A vote of thanks was tendered him. Teacher Henry spoke glowingly of the Instructor and asked the people to support the Branch. He was thanked. After minor matters were discussed the National Anthem brought a most profitable meeting to a close.

Ramble P.O. D. F. BOWEN,
Secretary.

Marlborough.—Meeting 25th June. Present: Instructor D. A. Jones, Mr. O. R. K. Murray, in the chair and 12 members. Election of Officers resulted thus:— President, Mr. Z. Ffrench; 2nd Vice-President, Mr. E. Riley and Secretary, Mr. S. L. S. Sterling. In the Instructors address he urged every member to encourage others to become members of the Society. Three Authorised Persons reported on their work. The Instructor spent the whole day in the district visiting the holdings and carrying out demonstrations. He also demonstrated to the staff and children of the school budding and top-working of citrus inserting 16 buds of Marsh Seedless grape fruit. The meeting was brought to an end by the singing of the National Anthem.

Richmond P.O. S. L. S. STERLING,
Secretary.

Preston.—Meeting June 26. Mr. C. C. Barrett, presiding and 9 other members were present. All the Officers except the Treasurer were re-elected. Mr. D. J. Fogerson was elected as Treasurer. After some profitable discussions the meeting terminated in the usual way.

Bonny Gate P.O. I. A. AMIEL,
Secretary.

Wallingford.—The first regular meeting for the year took place on July 12. Present: Mr. Malcolm Taylor in the chair, Instructor L. A. M. B. Coke, fifteen other members and twelve visitors including eight juveniles. Three resolutions drafted at a special meeting were read. The Branch decided to hold a picnic on next meeting day in aid of the Jubilee Memorial Fund. The delegate to the Half-Yearly Meeting received a few hints and then the Instructor addressed the meeting. He gave very useful hints on field sanitation, and on citrus planting and the Governments new citrus venture. Mr. Jas. S. Laing sang "Golden Gate." The Roll Call and a brief statement of the financial standing of the Branch followed. The singing of "The King" closed the meeting.

Guy's Hill P.O. JAS. S. LAING,
Asst. Secretary.

ST. THOMAS. Hagley Gap.—Meeting 31.5.35. Messrs. A. Henderson and H. Forester were elected delegates to the meeting of the St. Thomas Branches Associated.

Mr. Peter Hardy reprted on the work of the Mutual Working Scheme. He said that 10 members met at his field on May 21st and a very splendid day's work was done.

Another meeting was held on 11th July. Instructor U. A. McLaren was present. The delegates to the Half-Yearly Meeting of the Associated Branches gave their reports and received the thanks of the meeting. The report on the Mutual Working Scheme was given and it was found that the only unsatisfactory section was the Minto—Hagley Gap Area. The members were determined to do better for the future. The Instructor gave a practical address on fruit, production, growing of vegetables and the ravages of the pimento disease. He drew attention to the recent regulation regarding banana suckers. The meeting agreed to vote 1/- for the Citrus Competition. The Branch agreed that not less than 5/- should be sent towards the Jubilee Memorial Fund. Mr. H. B. Gilroy was nominated delegate to the Half-Yearly General Meeting.

Hagley Gap P.O. J. B. HEYWOOD,
Secretary.

Pear Tree River.—Meeting held 1st July. Present.: Mrs. E. Beckford in the chair. Instructor Mr. U. A. McLaren, seven other members and a few visitors. Address was given by Mr. McLaren. The meeting ended with the singing of the National Anthem.

Port Morant P.O. JOHN LEE,
Secretary.

Seaforth.—Meeting July 17. Present: Mr. T. A. Edman, President; and eight other members. Mr. Sullivan proposed that Mr. Calder, Manager of the Seaforth Sugar and Rum, Ltd., be invited to speak on "Sugar" at the next meeting of the Branch. The Branch decided to subscribe to the Shilling Fund for Citrus Competition. and the Jubilee Memorial Fund. Mr. A. O. Grant related his experience of the recent visit of teachers to the Agricultural Experimental Plot at Llandewey and of the practical value of such visits. The President thanked Mr. Grant. The Secretary read delegates' report to the Half-Yearly Meeting of the St. Thomas Branches Associated. National Anthem.

Seaforth P.O. E. L. STEWART,
Secretary.

Other Reports Received.

Branch.	Date of Meeting.	Attendance.	Business.	Secretary.
St. Ann.				
Bamboo ..	23.6.35	19	Corn Competition. Address by Instructor Atkinson.	J. Lowe.
St. Catherine.				
Phillipsburgh	8.7.35	22	Authorised Persons. Date of meetings. Address by Instructor Coke.	C. A. Leslie.
Springfield ..	11.6.35	18	Report on Parish Association meeting. Appointment of delegate to Half-Yearly General Meeting. Address by Instructor Coke.	S. C. Matthews.
Victoria	18.7.35 and 20.6.35	..	Means of improving the Branch. Addresses by Instructor Byles. Report on unveiling of lamps. Election of delegate to Half-Yearly Meeting. Report of Associated Branches meeting.	M. L. Burrell.
Sligoville ..	5.6.35	..	Reports from Committees. Nomination of delegate to Half-Yearly Meeting. Nomination for Board of Management. Address by Instructor Byles.	(Miss) E. B. Reid.
St. Thomas.				
Middleton ..	27.6.35	14	Report on Parish Association meeting. Nomination for Board of Management. Addresses by Rev. Spencer and Mr. T. C. Creightney. Water Supply.	E. S. Blake.
Westmoreland.				
Cairn Curran ..	14.6.35	..	Citrus, Pimento, Vegetables, Small Stock. Addresses by Supervisor, Mr. Bacquie, Inspector of of Plant Diseases, Mr. Arnand and Instructor Kelly.	(Miss) P. A. Hemmings.
New Road ..	27.6.35	..	Report of Parish Association meeting. Address by Instructor Wray.	Vivian W. T. Fagan.
Trelawny.				
Alps ..	19.6.35	13	Parish Association, Coffee Pulper. Sale of Crown Lands. Election of delegate to Half-Yearly General Meeting.	Ed. N. Burke.
Waldensia ..	8.7.35	..	Roads. Nomination for Board of Management.	C. C. Lee

Other Reports Received, Contd.

Branch.	Date of Meeting.	Attendance.	Business.	Secretary.
Warsop ..	18.6.35	..	Appointment of delegate to Half-Yearly General Meeting. Police Station. Address by Instructor.	U. K. Walters.
Wakefield ..	2.7.35	86	Parochial Dispensary, Govt. Savings Bank. Nomination for Board of Management. Addresses by Instructor Thompson and Corporal Ricketts.	E. S. Bliss.
St. Andrew. Content Gap	15.6.35	17	Appointment of delegate to Half-Yearly General Meeting. Road. Citrus Competition. Addresses by President, Treasurer and Secretary.	F. A. Wilson.
Rock Hall	15.7.35	12	Report of Parish Association meeting. School. Roads. Pimento Disease. Election of delegate to Half-Yearly, General Meeting. Addresses by Instructor Hanson and Mr. Bacquie, Supervisor of Instructors.	(Mrs.) B. Heslop.
Tower Hill ..	10.6.35	21	Water Supply. Appointment of delegate to Half-Yearly General Meeting.	A. V. Hague.
Westphalia ..	1.6.35	19	Authorised Persons. Routine matters.	S. Parkes.
Manchester. Comfort Hall	12.7.35	23	Jubilee Memorial Fund. Small Stock. Address by Instructor Thompson.	(Miss) G. A. Nash.
Comfort Hall ..	14.6.35	25	Appointment of delegato to Half-Yearly General Meeting. Report of Parish Association meeting. Donation of 10/- to Citrus Competition. Nomination for Board of Management. Citrus nursery.	(Miss) G. A. Nash.
Mile Gully ..	26.6.35	..	Appointment of delegate to Half-Yearly General Meeting. Corn Industry.	T. A. Morris.
Old England	25.6.35	..	Report of Parish Association meeting. Land Settlement. Citrus Competition.	C. P. Watson.
Royal Flat ..	10.7.35	..	Citrus Nursery. Routine matters.	H. L. Johnson.
Snowdon ..	9.7.35	..	Corn. Peanuts. Purchase of additional agricultural implements for Branch.	Fred. H. Jones.

Other Reports Received, Contd.

Branch.	Date of Meeting.	Attendance.	Business.	Secretary.
Portland. Belvedere	12.7.35	13	Appointment of delegate to Half-Yearly General Meeting. Citrus Competition. Address by Instructor.	L. C. Blair.
Claverty Cottage	8.6.35	19	Appointment of delegate to Half-Yearly General Meeting and Parish Association meeting. Water Supply.	Stanley T. Young.
Drapers ..	7.6.35	..	Appointment of delegate to Parish Association meeting. Citrus Competition. Address by Instructor G. R. Graham.	M. P. Duncan.
Mt. Hermon	10.7.35	..	Citrus. Irish Potatoes. Improvement of Small Stock.	J. L. Hinds.
Clarendon. Frankfield ..	28.6.35	16	Donation to Jubilee Memorial Fund. Water Supply. Small Stock. Outing to Grove Place. Address by Instructor J. A. Graham.	W. T. Edwards.
Pleasant Valley	18.6.35	41	Appointment of delegate to Half-Yearly Meeting. Citrus Addresses by Instructor Virtue, Mr. Williamson and Miss Manning.	(Mrs.) A. A. Flyter
Red Hills ..	.7.35	..	Coffee. Routine matters. Address by Mr. W. A. James.	A. E. Mills.
Red Hills	3.6.35	..	Routine matters. Coffee pulper.	A. E. Mills.
St. James. Catadupa ..	13.7.35	23	Citrus. Small stock. Addresses by Instructor Marr and Sergt. R. G. Hunter.	L. E. Grey
Roehampton	13.7.35	8	Citrus Competition. Jubilee Memorial Fund. Address by Instructor Marr.	J. Aug. Rhoden.
Salt Spring ..	10.7.35	8	Cornwall Agricultural Exhibition. Routine matters.	L. E. Dillion.
St. Mary. Belfield ..	9.7.35	21	Appointment of delegate to Half-Yearly General Meeting. Citrus. Authorised Persons.	M. L. Rennalls.
Baxter's Mtn.	16.7.35	..	Citrus Competition. Visit of His Excellency the Governor. Routine matters.	R. J. Lawson Ricketts.

Other Reports Received, Contd.

Branch.	Date of Meeting.	Attendance.	Business.	Secretary.
Baxters Mtn.	18.6.35	..	Water Supply. Address by Instructor D. A. Jones	R. J. Lawson Ricketts.
Lewis Store	3.6.35	..	Juvenile Branch. Citrus. Authorised Persons. Address by Instructor D. A. Jones.	A. Bullock.
Mt. Regale ..	7.6.35	12	Appointment of delegate to Half-Yearly General Meeting. Insect Pests. Address by Instructor D. A. Jones.	
Rock River ..	25.6.35	..	Jubilee Memorial Fund £1 3s. 3d. subscribed.	E. Geo. Anderson.
Central St. Mary	8.7.35	8	Appointment of delegate to Half-Yearly General Meeting. Report of Parish Association meeting. Address by Instructor D. A. Jones.	C. L. Williams.
Tryall Hill	20.5.35	20	Lands for Ex-Contingent men. Roads Appointment of delegates to Parish Association meeting.	A. A. Constable.
St. Elizabeth. Aberdeen	22.6.35	17	Appointment of delegate to Half-Yearly General Meeting. Nomination to Board of Management. Small stock. Address by Instructor Thompson.	U. A. Brown.
Beeston Spring	28.6.35	35	Citrus Competition. Corn Industry. Address by Instructor Wray.	C. G. Simms.
Kilmarnock.	9.7.35	..	Excursion to Hope Gardens. Jubilee Memorial Fund. Road. Address by Instructor Wray.	J. E. Monteith.
Malvern ..	31.5.35	17	Citrus Industry. Coffee Growing Competition. Address by Instructor Lynch.	(Miss) E. I. Blake.
Kilmarnock ..	11.6.35	20	Water Supply. Report of Parish Association meeting. Roads. Small Stock.	J. E. Monteith.
Springfield ..	5.7.35	13	Donations to Jubilee Memorial Fund and Citrus Competition. Address by Instructor Wray.	J. A. Woodstock.
Springfield ..	7.6.35	15	Report on Parish Association meeting. Domestic Matters.	J. A. Woodstock

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Velvet, 3 grades	4/6	"
Royal Sovereign	5/6	"
Blue and Red Checking	2/6	"

INDELIBLE.

In red or blue	2/6	"
Wolfe's Copying, in red, green, blue or violet	4/-	"
Iron Duke, Hard	4/-	"
Faber's Copying	5/6	"

ERASERS.

Ink and Pencil Erasers	3/6	doz.
Faber's Pencil Erasers	3/6	"
Fabers Typewriter Erasers	3/6	"
Faber's Typewriter with brush	8/-	"
Pencil Sharpeners	10/6	ea.
Hand Sharpeners	1/-	

RUBBER BANDS, &c.

1 oz. Box, grey, assorted	7½d. ea.
1 oz. Box, ruby, assorted	9d. "
4 oz. Box, Faber's assorted	1/6 "
Paper Clips *"Gem"*	6d. box
Pins, medium and small	7½d. & 9d. "

Paper fasteners, brass 1/-, 1/9, 2/9 and 2/6 per box

SUNDRIES.

Blotting Paper, white or pink, 2/6 qr.
Blotting Paper, green, Thick 8/- qr.
Blotting Pads, 2/6, 4/- & 7/6 ea.
Stenographers Note Books, 5/- doz.
Duplicate Note Books, 1/- and 1/6 ea.
Prince of Wales, Exercise Books, 1/4½d and 2/6 doz.
Loose Leaf Note Books, 4/- to 6/6 in all sizes
Loose Leaf Ledgers, Complete
Loose Leaf Sheets stocked
Loose Leaf Sheets, ruled to order
Playing Cards 1/-, 1/6 and 2/- pk.
Poker Dice, 4/- and 5/- set

FOUNTAIN PENS.

Komak, 2/6 ea.
Cocking's Eezee Writer, 7/6 and 12/6
Waterman's Pens, 15/- & 21/-
The Duro Pen, 20/-, 25/- and 30/
Platignum Supreme 10/6
Waverley Pens, 3/6
Everhandy Pen and Pencil sets, 1/6.

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Department of Agriculture.

POSTAGE.—Postage on all communications addressed to the Superintendent of Public Gardens, Hope Gardens, Kingston P.O., must be prepaid.

REMITTANCES.—The full value of all orders must be prepaid. In making payments, cheques and postal orders should be made payable to the Director of Agriculture and crossed Bank of Nova Scotia. Postage stamps are accepted only for smaller amounts than 6d.

COST OF BOXES.—The costs of boxes used in packing plants will be added to each account at the following rates:—

Up to	7 plants	....	6d.
"	20 "	....	9d.
"	30 "	....	1/6
"	40 "	....	2/-

and an additional 6d. for every additional 10 plants or portion of 10 plants.

N.B.—BOXES ARE NO LONGER RETURNABLE.

FRUIT TREES AND PLANTS.—Price 1½d. each, except where otherwise stated, delivered free at any railway station.

Star Apple, Otaheite Apple, Jack Fruit, Nilgiri Hills Blackberry plants from beds; Coco Plum, Naseberry, Granadilla, Tangierine, Guava, Java Plum, Cherimoya, Papaw, Mangosteen, 1/-; Grape, 4½d.

ECONOMIC PLANTS.—Price 1½d. each, except where otherwise stated, delivered free at any railway station.

Ylang-ylang (Cananga odorata), Cinnamon, Annatto, Breadfruit, 9d.; Sarsaparilla.

ORNAMENTAL SHADE TREES AND SHRUBS.—Price 1½d. each, except where otherwise stated, delivered free at any railway station.

Bauhinia Galpini; Brownea coccinea, Couroupita guianensis (Cannon Ball Tree), Dillenia indica, Michelia Champaca (Champac Tree) Palms, several species; Poinciana regia (Flamboyant), Posoqueria longiflora, Saraca indica (Asoka Tree), Tecoma spectabilis (Poui), Jacaranda mimosæfolia, Spathodea campanulata, Cassia nodosa, 4½d. each, Triplaris surinamensis, 4½d. Ficus lucida 1/6. Cassia grandis, 4½d.; Thuja 9d. each. Ficus elastica, 1/6 each. Murraya exotica; Cordia sebestea.

FREE ECONOMIC PLANTS.—Pithecolobium arboreum (Wild Tamarind), from beds; Diospyros discolor (Ebony), W. I. Cedar, Mahogany.

NOTE.—Plants are conveyed free by railway. They are guaranteed in perfect order when sent out to the Gardens, but the Department is not liable for any loss or damage in transit. Plants will be delivered at Mail Coach Office at the discretion of the Department. Plants will not be sent to private residences.

Jamaica Agricultural Society.

MEMBERS' EXCHANGE COLUMN.

The following are offered *for sale*.

Description Produce or Livestock.	Price.	Name.	Address.
Strawberry plants.	5/- per 100	S. J. Howe	Newport
Pure bred White Leghorn pullets and cockerels also eggs.	On application	A. C. Findlay	Rose Hall
Five Essex-Berkshire Boar pigs, born 2nd March, 1935.	£3 3s.	Secretary J.A.S.	Kingston
1 half-bred Suffolk Ram	£5	D. S. Simmons	Walkerswood

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113 HARBOUR STREET, KINGSTON.

THE JOURNAL

OF THE

Jamaica Agricultural Society.

The more people do the more they can do; he who does nothing renders himself incapable of doing anything; while we are executing one work we are preparing ourselves for undertaking another.

Vol. XXXIX. SEPTEMBER, 1935. No. 9.

BOARD OF MANAGEMENT.

The regular monthly meeting of the Board of Management of the Jamaica Agricultural Society was held at the Office of the Society, 11 North Parade, Kingston, on Wednesday the 7th August, 1935, at 11.30 a.m. There were present: Mr. T. J. Cawley, First Vice-President in the chair, Rev. W. J. Thompson and U. Theo. McKay, Second and Third Vice-Presidents, respectively, Messrs. Sidney Barton, R. A. Burke, T. P. V. McDaniel, D. D. Phillips, W. Harper Watson and D. T. Wint, Major A. Rupert Moxsy, Mr. P. St. L. Bacquie, Supervisor of Instructors and the Secretary, Glaister Baxter. Hon. C. A. Reid and Mr. W. L. Barnett, Acting Director of Agriculture, attended shortly after the meeting began.

Apologies for Absence—

The Secretary tendered apology for absence on behalf of Hon. E. A. McNeill.

Confirmation of Minutes of the previous Meeting—

Copies of the minutes of the last meeting having been sent to members of the Board, they were taken as read, and on the motion of Mr. McDaniel, seconded by Mr. Phillips, were confirmed.

Welcome to new Members of the Board.—

This being the first meeting of the Board since the Triennial Election which took place on the 25th July, 1935, the Chairman extended a welcome to the newly elected members and said he hoped that the deliberations of the Board would always be useful, and that the members would work with one aim, namely, the benefit and improvement of agriculture throughout the Island.

Matters arising out of the previous Minutes—

(a) *Statement by Secretary.*—The Secretary stated:—

(i) That the enquiry referred to the Bee Industry Committee had not been made, the Committee not having met before the Half-Yearly Meeting when the election for the present Board took place. He had however, gone into the matter of the stock at Hylroy and discovered that queen cages advised as having been sent to the apiary were in stock in the Society's seed store.

(ii) That he had received copy of plan of the proposed alteration to the building from the Public Works Department, but on enquiry,

had been advised that the estimates of costs would not be ready for the meeting that day. He begged to suggest that a Special Committee be appointed to handle the matter should the estimates be available before the next meeting of the Board.

(iii) That a special arrangement had been made between Instructors and the Kingston Industrial Garage whereby they—the Instructors—could obtain cars on a special plan for payment, subject to an undertaking by the Secretary to make certain payments from the salary of of any Instructor who obtained a car, so long as he remained in the employment of the Society. He had given such an undertaking in the cases of four Instructors.

This was noted, and it was decided that in view of what had been reported by the Secretary it was no longer necessary for the Bee Industry Committee to carry out an enquiry.

(b) *Terms of Employment—Letters from Instructors Coke and Thompson.*—Letters from Instructors Coke and Thompson, accepting Regulations re employment, as adopted by the Board at their meeting, held 28th February, 1933.

The Secretary stated that this completed the acceptance by the office and field staff of the terms set out by the Board.

(c) *Appointment of Supervisor.*—The Secretary read from the minutes of the last meeting the resolution which was passed regarding the appointment of a Supervisor of Instructors for the eastern area.

After discussion, Mr. McKay moved that the matter be dealt with six months from date.

Major Moxsy suggested that the matter be deferred until the Estimates for the next financial year were being made, and Mr. McKay agreed to this.

Mr. Burke moved that the matter be deferred until Mr. Cover, the original mover of the resolution, returns to the Island.

This was seconded by Mr. Phillips.

After further discussion, Mr. Burke's amendment was put to the vote and lost.

Mr. McKay having agreed to the suggestion by Major Moxsy, the motion that further consideration of the matter be deferred until the next year's Estimates were being prepared, was put to the vote and carried.

(d) *Letter from Department of Agriculture re inspection of Apiaries.* The Secretary read the following letter:—

No. CD.360. *Hope, Kingston,*
26th July, 1935.

"I beg to acknowledge the receipt of your letter No. 226 dated 23rd July, 1935, and in reply *to inform you that instructions were given to secure the necessary inspection of* apiaries in the infected areas of Kingston and St. Andrew during the month of July, in accordance with the request of the Board of Management of the Jamaica Agricultural Society.

2. It is anticipated that the cost of these inspections will not exceed Ten Pounds (10). The expenditure will be charged to the "Grant-in-Aid of the Bee Industry"—Item 39 of Head *XXXVIII of the Estimates for the current year.*"

(Sgd.) W. L. Barnett,
Acting Director of Agriculture.

At the direction of the Chairman, the Secretary also read the letter from the Acting Colonial Secretary, dated 18th June, 1935, in which it was stated that:—The Director of Agriculture reported that in order to secure the eradication of Foul Brood Disease of bees, it was necessary that periodical inspection of apiaries should be maintained in Kingston and St. Andrew, for at least 12 months, and that suspicious cases occurring in country parishes should be investigated promptly.

ne Governor considered that this work should be carried out as a iarge against Item 39 "Grant-in-aid Bee Industry" of Head XXXVIII ſ the Estimates and would be glad if the Society would have the ork carried out by its staff. In the event of the Society being unable o undertake this duty, the work should then be done by the Department f Agriculture and paid for out of the vote referred to above.

The Secretary also read letter he had forwarded to the Acting Director f Agriculture as follows:—

23rd July, 1935.

Sir,

For your information I have to advise that the letter of the Hon. Acting Colonial Secretary to this Society numbered 6733/34, and dated 18th June, copy of which I attach for your easy reference was considered at the last meeting of the Board.

The Hon. A. C. Barnes was present during the discussion, and it was decided that your Department should be requested to carry on such inspection of bees as would be necessary for the next month or so and that this Society would repay the necessary expenditure from the Bee Industry vote which we administer. Mr. Barnes intimated that such expenditure was not likely to exceed £10 per month."

Mr. McKay said it was impracticable for the Society to incur additional expenditure on a vote of £500 which was already allocated. He moved that the Society hand over Item 39 "Grant-in-Aid Bee Industry" of Head XXXVIII of the Estimates to the Government and ask them to allow the Department of Agriculture to administer it.

The Chairman seconded the motion for discussion, and observed that if the resolution was carried it would be an admission by the Board of their inability to administer the £500. If they administered the vote they would be faced with another problem as the officer to do the inspection must be authorised under the Law, and their present Instructor who once had such a License had for laches been reported by the Director of Agriculture who had his name removed from the list of persons authorised to do such inspection.

Mr. Reid asked if the officer referred to had been dismissed and the Chairman stated that he had been dismissed and reinstated.

Mr. Reid suggested that in view of the fact that the officer had been reinstated, the Government should be asked to re-issue his license.

Mr. Barton pointed out that the office of Inspector of Apiaries carried no salary and he did not see why the Society should be called upon to have the work done. The Government was aware that the £500 had already been allocated. He moved that the Government be asked to pay fees in connection with the inspection of apiaries as the Society had already appropriated all the money that was given to them to pay a Bee Instructor.

The Acting Director of Agriculture stated that the Department of Agriculture had only a token vote of £5 on their Estimates that could be used for this purpose. The necessity for the inspection of apiaries and for issue of certificates as to the absence of contagious bee diseases had only recently arisen. A good many markets formerly open to Jamaica honey were now closed and it needed at least a 6 months clean bill of health before these markets would be reopened. The Government was asked to pass a Special Warrant for this work to be carried out, but this request was refused, and it was directed that the work should be paid for out of the amount voted as Grant-in-Aid to the Bee Industry. He thought it was necessary for the Society to show that they had already appropriated the grant of £500.

Mr. Reid asked on whose recommendation the license was granted, and was informed that it was on the recommendation of the Department of Agriculture. On enquiry he was also informed that there were other

officers who carried on this inspection work who were not paid from the grant of £500.

Mr. Reid said if there were three persons doing the same kind of work in the same aréa how would you place responsiblity.

Mr. Thompson said in saying that this question was one of reaction, he knew he would be challenged. In his opinion the Society was being penalized because of certain actions of the Board which were not approved by either the Government or the Department of Agriculture.

Mr. McDaniel said he expected that the Bee Industry Committee would have submitted a recommendation to the present meeting on the lines of Mr. McKay's motion. He agreed that the amount should be handed back to the Government and thought it would not reflect on the ability of the Board if this was done.

Mr. Phillips asked if the matter had been referred to the Bee Industry Committee and was informed that the Committee had gone out of office since the last General Election on the 25th July last.

Mr. Wint said it seemed that since investigations had been made, and the Bee Instructor reinstated, that that officer was cleared.

Mr. Phillips moved that the matter be referred to the Bee Industry Committee who would be able to place before the Board ways and means by which the matter could be carried out satisfactory to the Government.

Mr. Reid said that the Board in reinstating the Bee Instructor acknowledged that they had confidence in him as a suitable officer, and formally moved as an amendment to Mr. McKay's motion, that the Government be asked to reappoint the Bee Instructor as an officer authorised to inspect apiaries.

This was seconded by Mr. McDaniel, put to the vote and carried, seven members voting for and two against it.

(e) *Letter from Mr. R. Parkinson re remuneration for audit and reappointment.*—The following letter was read:—

July, 30th, 1935.

Dear Sir,

I acknowledge receipt of your two letters of the 23rd instant; the first advising me of re-appointment as Auditor of your Society for the current financial year and the latter with respect to my application for an increased fee for last year.

In accord with your request I take this means of accepting and thanking your Committee for the appointment.

With regard to the remuneration of last year, I am much disappointed at the decision and ask if you will be good enough to submit the facts stated in my application to the Committee with a view to a reconsideration of this question; that the audit work has been more than doubled in the last two years.

(Sgd.) R. Parkinson,
Auditor

The Secretary was directed to advise the Auditor that the Board was unable to resile from their original decision in this matter.

Appointment of Committees—

(a) *Standing Committees.*—The following were the members appointed to the Standing Committees:—

1. *Planning:* Director of Agriculture, Hon. R. Ehrenstein, T. P. V. McDaniel, Hon. George Seymour Seymour, O.B.E. and D. T. Wint.
2. *Instructors: The membership of the entire Board.*
3. *Office and Journal*: Director of Agriculture, Sydney Barton, C. O. Cover, T. P. V. McDaniel, Hon. George Seymour Seymour, O.B.E, Hon. H. A. L. Simpson, O.B.E. and D. T. Wint.
4. *Bee Industry*: Director of Agriculture, R. A. Burke, C. O. Cover, D. D. Phillips, Hon. C. A. Reid, S. M. Walker, W. Harper Watson and D. T. Wint.
5. *Staple and Minor Products*: Director of Agriculture, R. A. Burke, D. D. Phillipps, T. P. V. McDaniel, Hon. E. A. McNeill, Major A. R. Moxsy, S. M. Walker and D. T. Wint.
6. *Live Stock*: Director of Agriculture, Sidney Barton, R. A. Burke, C. O. Cover, Major A. R. Moxsy, Hon. C. A. Reid, and W. Harper Watson.

7. *Shows*: Director of Agriculture, Sydney Barton, Hon. E. A. McNeill, Major A. R. Moxsy, Hon. George Seymour Seymour, Hon. H. A. L. Simpson, O.B.E. and W. Harper Watson.

(b) *Special Committees*.—The Secretary stated that there were certain matters on which no finality had been yet reached which were receiving the consideration of Special Committees. It was necessary to have five Special Committees to carry through further deliberations.

The following members were then appointed to the Special Committees:—

Provident Scheme: The Director of Agriculture, Messrs. T. J. Cawley, C. O. Cover, Sydney Barton, J. M. Nethersole, D. T. Wint, and R. A. Burke, Major A.R. Moxsy and the Secretary.

Cane Farming: Messrs. U. Theo. McKay, T. P. V. McDaniel, T. J. Cawley, H. R. Sharp and Major A. R. Moxsy.

Agricultural Produce Law: Messrs. T. J. Cawley, C. O. Cover, S. M. Walker, U. Theo. McKay, D. D. Phillips, T. P. V. McDaniel, D. T. Wint and R. A. Burke.

Revision of Rules of the Society: The personnel of the Office Committee.

Instructors and Course at Imperial College, Trinidad. The Director of Agriculture, Messrs. T. J. Cawley and D. T. Wint, Hon. C. A. Reid and the Secretary.

Major Moxsy gave notice that at the next meeting of the Board he would move that the Bee Industry Committee co-opt Mr. Sangster to act as a member of that Committee.

The meeting then adjourned for luncheon.

On the resumption there were present:—Mr. T. J. Cawley in the chair, Messrs. McKay, McDaniel, Burke, Rev. W. J. Thompson, the Acting Director of Agriculture, the Supervisor of Instructors and the Secretary. Messrs. Wint, Watson, Reid, and Major Moxsy attended during the course of the meeting.

Statement of Accounts—

(a) *Statement for June*.—The Secretary pointed out that the statement for June appeared in the minutes of the last meeting.

(b) *Statement for July* was submitted as follows:—

STATEMENT OF ACCOUNTS FOR JULY, 1935.

Receipts.	Estimates. £	s.	d.	Total. £	s.	d.
To Subscriptions	175	0	0	99	17	11
Affiliation and Journal Fees	175	0	0	159	15	6
Advertisements in the Journal	350	0	0	27	1	6
Mescellaneous	10	0	0	10	13	11
Bee Industry Sales	30	0	0	8	1	3
Sales Department Profits, 1935-36	400	0	0	..		
Government Grant	9,500	0	0	3,166	13	4
Grant for Beekeeping Industry	500	0	0	125	0	0
Appropriation from Sales Department Surplus	657	5	0	..		
	£11,797	5	0	£3,597	3	5
Balance from 31st March, 1935	..			781	7	7
Agricultural Shows: Deposits	..			26	18	[illegible]
Citrus Compt: Shilling Fund	..			19	18	[illegible]
Jubilee Memorial Appeal Fund	..			10	2	[illegible]
Seeds Trading Account	..			1,419	2	1
				£5,854	13	
Less Expenditure as per contra	..			5,329	4	
				£525	8	

	£	s.	d.	£	s.
Cash on Hand	56	12	8		
Cash at Barclay's Bank	37	7	10		
Cash at Royal Bank of Canada	431	8	5	525	8

Expenditure.	Estimates.			Total.		
	£	s.	d.	£	s.	d.
By Personal Emoluments:						
Secretary and Office Staff	2,117	5	0	682	16	8
Instructors and Supervisor	7,671	0	0	2,591	7	2
Instructors' Course at Hope	125	0	0	71	19	2
Instructors' Tools and Contingencies ..	75	0	0	48	13	4
Secretary's Office and Special Travelling ..	100	0	0	58	7	11
Printing and Stationery	100	0	0	47	11	11
Printing and issuing Journals and Reports ..	800	0	0	123	6	4
Rent and Rates	58	0	0	17	18	4
Rent of Telephones	27	0	0	8	16	0
Postages and Telegrams	10	0	0	3	12	6
Office Equipment: Repairs	15	0	0	0	10	9
Incidentals	50	0	0	23	1	6
Auditor's Fees	25	0	0	..		
Library Books	10	0	0	3	8	10
Show Equipment: Repairs	10	0	0	5	1	1
Experiments: Bombay Mango Industry, etc.	100	0	0	18	10	11
New Office Equipment	40	0	0	5	1	0
	£11,333	5	0	£3,710	3	5
Beekeeping Industry	500	0	0	182	10	9
	£11,833	5	0	£3,892	14	2
Agricultural Shows: Printing	..			22	0	0
Plant Disease Control	..			1	4	8
Citrus Budwood	..			5	14	2
Local Competitions	..			3	16	6
Travelling Advances: Instructors ..	..			322	10	0
New Show Equipment	..			38	7	0
Seeds Trading Account	..			1,042	18	3
				£5,329	4	9

(Sgd.) GLAISTER BAXTER,
Secretary and Treasurer.

Resolutions—

(a) *Mr. D. D. Phillips re date of Committee meetings.*—As Mr. Phillips was not present this matter was deferred.

(b) *Resolution from Mr. B. A. Forrest (Direct Member), re payment of Authorised Persons.*—This resolution stated that the Clerks of the Courts in some parishes will not pay Authorised Persons on right lines and requested that the Board of Management take up the matter.

The matter was referred to the First Vice-President and the Secretary.

Communications—

(a) *Memo from 1st Vice-President re request from C.S.O. for Secretary to be Secretary of Agricultural Development Board.*—Memorandum from Mr. Cawley was submitted, stating that he had received a letter from the Hon. Acting Colonial Secretary, asking that the services of the Secretary of the Jamaica Agricultural Society be given to the Government as Secretary of the proposed Agricultural Development Board.

The Board approved of this and the Secretary having expressed his willingness to act in this capacity, the First Vice-President said he would have much pleasure in informing the Acting Colonial Secretary that the Board of Management appreciated the honour conferred on the Secretary in his appointment to such an important Committee.

(b) *Letter from C.S.O. re Greetings to Their Majesties.*—The following letter was submitted:—

Nos. 3410/35 25th July, 1935.

With reference to the correspondence ending with the letter from this Office, No. 3410/35 of the 6th June, 1935, in regard to the resolution unanimously passed by the Board of Management of your Society offering the loyal greetings of the agricultural population of the Colony to Their Majesties King George V and Queen Mary on the occasion of Their Silver Jubilee, I have the honour to inform you that the Secretary of State for the Colonies has requested that an expression of Their Majesties' appreciation of the loyal greetings may be conveyed to the Board of Management of the Jamaica Agricultural Society.

(Sgd.) A. R. Dignum,
for Acting Colonial Secretary.

(c) *Correspondence re Swamp Lands at Middle Quarters.*—The Secretary submitted a letter from the Acting Director of Agriculture, advising that the Government had approved of a portion of the Great Morass on the right bank of the Y. S. River, opposite to Holland Estate, consisting of between 50 and 100 acres (without survey and without encroachment) being made available at a peppercorn rental to persons desirous of cultivating rice, and that a communication from the Surveyor General would be received by the Society to that effect.

The Secretary said that this matter arose out of a request for lands from the Middle Quarters Branch of the Society.

The Secretary was directed to communicate with the Surveyor General's Department.

(d) *Correspondence re Exported Pimento.*—The Secretary reported that he had received the following letter:—

Hamburgh,
14th June, 1935.

"We are indebted to Mr. C. C. Henriques of Messrs. D. J. Scott & Co., London, for your address and should like to approach you in the following matter, which we believe is in our mutual interest.

There have been many complaints recently on the part of our members about recent Pimento shipments, which *contain an extraordinary large percentage of ripe berries.* This fact has caused no end of trouble to importers here. As a rule the Pimento imported into Germany is ground, and these ripe berries clog the mills and cause a good deal of trouble to all concerned. You will understand that Pimento shipments in this condition are very detrimental to trade and no doubt keep down the price of the article.

In the mutual interest of your producers and our importers and consumers here, we should therefore like to ask you to make every effort to stop the shipment of such Pimento. We trust, that these efforts will be successful and remain.

Yours faithfully,
(Sgd.) Verein.

The Secretary said he had forwarded a copy to the Chief Inspector of Produce.

He was further directed to refer the matter to Instructors who operated in pimento growing parishes, and to send copies of the letter to the Press and to the Hon. Acting Colonial Secretary.

(e) *Letter from C.S.O. covering Order re Export of Citrus.*—Lette from the Acting Colonial Secretary No. 1693/35 dated 9th July, 1935 was submitted covering an Order made by the Governor in Priv Council on the 21st June, 1935, making regulations relative to th exportation to New Zealand of citrus fruit.

The Secretary was directed to publish the Order in the Journal.

(f) *Memo from Instructors Conference.*—The Secretary submitted tl following:—

July 29th

To the Board of Management:

Gentlemen:

As a result of the Instructors' Conference held at this office on the 26th inst., I hav draw your attention to the following:

That the Instructors agree that a course in beekeeping should be provided for them

The Instructors request that the Board consider whether it would not be possible for them to prevent publicity to any disciplinary measures in connection with officers of the Society.

That the census surveys be carried through by all Instructors on a basis of three days a month being devoted to it, starting in September.

Yours very truly,
(Sgd.) GLAISTER BAXTER,
Secretary.

With regard to the proposal for a course in Beekeeping, after discussion, the Secretary was directed to refer this matter to the Bee Industry Committee for recommendations.

The Board regretted that they could not accede to the request to prevent publicity to disciplinary measures in connection with officers of the Society.

The Secretary was directed to refer the suggestion re census surveys to the Planning Committee.

Reports from Committees—

(a) *Instructors.*—The following report from the Instructors Committee was submitted:—

7th August, 1935.

To the Board of Management:

Gentlemen:

Your Instructors' Committee met this morning and recommend the following for the approval of the Board:—

1. That the Vice-President's report on the enquiry regarding breaches between Instructor Kelly and Mr. M. H. Segre be accepted, and the matter dealt with on the lines recommended in the report.

2. That leave of absence be granted to the following Instructors:—

Instructors Hanson and Kelly for the month of August.
Instructor Marr for the month of September.
Instructor Hastings for the month of October.

3. The following applications for affiliation having complied with the regulations are recommended for approval.

Keynsham	..	(Manchester)
Kentucky	..	(Westmoreland).

(Sgd.) GLAISTER BAXTER,
Secretary.

On the motion of Mr. McDaniel, seconded by Major Moxsy, the report was adopted.

(b) *Provident Scheme.*—The following report was submitted from the Special Committee dealing with the subject:—

July 24th, 1935.

To the Board of Management:

Gentlemen:

Your Special Committee appointed to consider the Employees' Provident Scheme, met on the 16th July, 1935, and carefully examined the ordinances of the Colonies of Kenya, Nigeria, Tanganyika, Trinidad and the Kenya-Uganda Railways and the Tanganyika Territory Railways.

We note that the features of insurance are included in the ordinances of Nigeria and Trinidad and that the contribution made compulsory from employees range in the various ordinances from 4% to 8½% of the employees' salaries and that the contributions from the various Governments exceed in many instances that of the employees.

We recommend that the principle of the scheme already submitted to the Government be adhered to with the following changes:

That the employee's contribution be 40% of the necessary premium and the employer's contribution 60% of the premium.

That insurance premiums paid by employees on policies already in existence be counted towards their voluntary contribution.

We attach draft of a letter which we recommend as a reply to the Hon. Colonial Secretary's letter No. 2292/33 dated 7th March, 1935.

Yours truly,
(Sgd.) GLAISTER BAXTER,
Secretary of the Committee.

On the motion of Mr. Thompson, seconded by the Chairman, the report was adopted.

(c) *Shows.*—The following report from the Show Committee was 'esented:—

To the Board of Management:

entlemen:

Your Show Committee met on the 16th July, 1935, and considered resolution of the alf-Yearly General Meeting referred to them by the Board. The resolution reads as ›llows:

"Whereas it is felt that properly organised comprehensive Agricultural Shows are of onsiderable assistance to the agricultural interests of the community: and whereas here appears to be at present no definite policy being followed by the Jamaica Agricultural iociety in the organisation of such Shows—Be it resolved that the Parent Body be asked o give this question immediate consideration and to formulate a scheme working in onjunction with the Director of Science and Agriculture for holding properly organized Agricultural Shows in definite areas at reasonable regular periods and that the responsibility for organising and financing Shows under such a scheme be undertaken by the Parent Body with the assistance of local Committees—Be it resolved also that any Scheme formulated shall embrace rules and regulations for such Shows and for the holding of local and Juvenile Shows so that a definite and carefully considered policy may be followed throughout the Island for the benefit of its agricultural progress."

We are of the opinion that the present system of initiating and carrying through Shows encourages self-help and initiative and increases local interest and voluntary service, and that these are such important features that nothing should be done to restrict them.

2. That the difficulties presenting themselves to the Parent Body in carrying through Shows in any part of the Island other than Kingston would be insurmountable.

3. That under the present system the Secretary, the Supervisor of Instructors and the Agricultural Instructor for the District are ex-officio members of all Committee o approved Shows, and the officers of the Society are always willing and ready to help local committees, and in referring any matter considered necessary to the Board of Management.

For these reasons your Committee cannot endorse the objects of the resolution.

We are however of the opinion that provisions should be made on the Estimates of the next financial year to allow of grants to Shows where necessary, as was formerly the custom.

Your Committee is also of the opinion that some regular show fixture, once in two years or so, to be held on or about the same period of the year, should be subsidised by the Parent Body, so as to enable exhibitors to have ample time for the production of exhibits on the assurance of a regular fixture, the regulations governing such subsidies to be formulated by the Board of Management.

Your Committee further recommends that the Board impresses on Show Committees the importance of properly administered gates and offer them assistance in this direction.

Your Committee recommends that the Spaldings Show fixture applied for for Easter Monday, 1936, be approved.

(Sgd.) W. J. Thompson,
U. Theo. McKay,
Glaister Baxter,
Secretary.

Mr. Thompson moved the adoption of the report and this was seconded by Mr. McKay.

After discussion the report was adopted.

It was also decided that the Director of Agriculture be asked to co-operate with the Show Committee in formulating a definite scheme re Shows for submission to the Board, which scheme if adopted by the Board should be forwarded to the Government.

Resolutions referred from Half-Yearly Meeting—

The following resolutions passed at the Half-Yearly Meeting were dealt with:—

(a) *Government Subvention.*—Five resolutions submitted from the Ulster Spring Branch (Trelawny), the Frankfield Branch (Clarendon) the Hanover Branches Associated, the Westmoreland Branches Associated, and the Comfort Hall Branch (Manchester) asking for an increased grant to the Society, were read.

The Secretary was directed to forward the resolutions to the Colonial Secretary

(b) *Protection of Red Peas Industry.*—Resolution from the Birnamwood Branch asking that the Government be requested to consider the advisability of increasing the duty on red peas now imported into the Colony from 1/- per bushel now levied on foreign grown to 4/- per bushel, and from 9d. per bushel on Empire grown to 2/- per bushel thus keeping the £20,000 odd spent annually on importations in the Island, as it was felt that the requirements of the Colony could be produced locally.

The Secretary was directed to refer the matter to the Staple and Minor Products Committee.

(c) *Crops in place of Pimento.*—This resolution from the Manchester Branches Associated asked that the Government be respectfully asked to appoint a Commission to enquire into and to report on the conditions respecting the Pimento Groves with a view to giving assistance and to recommending new industries in the place of Pimento.

It was decided that this matter be deferred pending the arrival of the expert, who would be visiting the Island for the express purpose of investigating the disease, and his report thereon.

In this connection the Hon. Mr. Reid said that the Department of Agriculture had done nothing towards relieving the situation with regard to the diseased pimento trees. He had, however, come across an individual who had some scientific knowledge and knew what he was about, who had selected some diseased trees and treated them. These trees were now in perfectly good condition and were bearing. Of course there was no guarantee that there would not be a recurrence of the trouble. It seemed to him that the difficulty was not perhaps as great as it was considered, and if a little care was taken by the Department of Agriculture some solution might be reached. Suggestions had been forwarded by the individual he referred to, to the Department of Agriculture, but so far no notice had been taken of them.

The Secretary was directed to write to the Department of Agriculture, setting out what Mr. Reid had said.

(d) *Revival of Cassava Industry.*—This resolution from the St. Mary Branches Associated asked that measures be taken to revive the industry, and was referred to the Staple and Minor Products Committee.

(e) *Wet Sugar Industry.*—Resolution from the Hanover Branches Associated, proposing a complete reorganization of the Wet Sugar Industry was submitted and referred to the Cane Farming Committee.

(f) *Shows.*—Resolutions from Major A. R. Moxsy, requesting that the Instructors' expenses attending Shows be paid by the Society, and that the Government be asked to set aside a sum of money for the purpose of advancing and assisting in the preliminary arrangements for Shows of "Island Wide" status, these advances to be refunded under certain conditions, were submitted to the Board and referred to the Show Committee.

(g) *Terms of Employment of Staff.*—The Secretary submitted resolutions submitted by Messrs. Rudolph Burke, Jas. H. Blackwood, I. V. Reid, and E. C. E. Grant (Direct Members), and the Unity Branch instituting new regulations as to the terms of employment of the office and field staff.

Mr. McKay raised the question as to how the resolutions passed at the General Meeting affected the authority of the Board of Management.

The Chairman said the resolutions were the voice of the people, but if the Board thought it inadvisable to carry out the recommendations then they would not do so.

In the discussion which followed the majority of members expressed the opinion that resolutions passed at the Half-Yearly Meeting were binding on the Board of Management.

Certain difficulties in regard to the terms of employment as set out in the resolutions were pointed out.

(h) *Pension for Officers of the Society.*—Resolution from the Rose Hall Branch asking that legislation be made that Officers of the Society be pensioned on the same lines as Elementary and Secondary School Teachers, was submitted.

The Secretary was directed to submit the resolution to the Provident Scheme Committee which had the subject under consideration.

(i) *Services of Secretary.*—This resolution from the Troja Branch submitted that the Secretary of the Society be allowed more time to pay periodical visits to the Branches and Associations of Branches.

During the discussion which ensued it was pointed out that it was due to the fact that there was no Assistant Secretary that the Secretary was unable to do more work in the country parts.

It was decided that this question along with the matter of the Supervision of Instructors should be again gone into when the Estimates were being considered and representations made to the Government, so that the situation could be improved.

(j) *Prize Holdings Competitions.*—This resolution from the St. Ann Branches Associated asked that the Society consider the advisability of again instituting the Prize Holdings Competitions.

It was decid d that the matter be considered along with the Estimates for 1936-37.

Bombay Mango Plot—

Mr. McKay asked that a report on the Llandewey Mango Plot be submitted at the next meeting of the Board.

The Secretary said that instead of a report, as Mr. McKay had recently visited the Plot he might be asked to speak on the subject at the next meeting.

Mr. McKay agreed to do this.

(a) *Secretary's report on travelling for July* was submitted and noted

(b) *Application from Mr. McDonald for leave.*—The Secretary stated that since the last meeting of the Board, the Accountant, Mr. McDonald had applied for one month's leave of absence as from the 19th July last, on Doctor's certificate to go to New York to get medical attention for his eyes. He had left on the 19th July, Since then he, the Secretary, had received a letter from Mr. McDonald requesting that the leave be extended to the 13th of September, as the time he originally estimated was insufficient to effect a cure.

The Board agreed.

On being asked the Secretary stated that up to date he had been able to carry on without employing extra help, but could not be certain that he would not need help. He was directed, should the occasion arise to consult the First Vice-President and obtain the necessary assistance.

(c) *Resolution re countersigning of Cheques.*—The Secretary stated that during the absence of the Accountant it was necessary to authorise a clerk to countersign cheques drawn on the Royal Bank of Canada to pay accounts in connection with the Seeds Department.

The necessary resolution was passed authorising the Cashier, Mr. Cooper, to countersign the cheques.

(d) *Application from Miss Hilton for two weeks' leave* as from the 16th September, was granted.

Disease of Plants and Animals: Insect Pests—

(a) *Panama Disease of Bananas—Report for June.*—The monthly report on the incidence of Panama Disease was laid on the table. The Secretary stated that copies had been forwarded to members of the Board.

Small Stock Subsidy—

(a) *Application from Bethel Town Branch re Boar.*—The Secretary submitted application from the Bethel Town Branch for a grant of 30/- to enable them to purchase a Boar for £3, and said that the application was recommended by the Instructor for the area.

The application was granted, and the Secretary instructed to see that the proper type of pig was obtained.

(b) *Application from Hampshire Branch re Cockerel.*—Application from the Hampshire Branch for a grant towards the purchase of a Rhode Island Red Cockerel for 15/- supported by Instructor Byles, was submitted and approved.

(c) *Application from Holly Hill Juvenile Branch re Buck Rabbit.*—The Secretary submitted application from the Holly Hill Juvenile Branch. The application was endorsed by Instructor Marr.

The Board agreed that the subsidy which the Secretary stated would be about three shillings, be granted.

Shows—

(a) *Report on Darliston Show.*—Report from Mr. A. A. McDonald, Secretary of the recently held Show at Darliston, was presented, stating that due to rain the attendance at the Show had not been what was anticipated and the Show had not been a success financially.

The Secretary reported that the Show Committee had paid their account with the Society.

Authorised Persons—

(a) *Letter from C.S.O. re grant to Authorised Person.*—Letter No. 4017/35 of date 4th July, 1935, was submitted, stating that the Government had approved of an ex gratia grant of £3 from the Charitable Vote being made to an Authorised Person attached to the Lucky Hill Branch in connection with the loss of his finger as a result of his being bitten by a man whom he was attempting to arrest.

The Secretary said he had forwarded the information to the Branch.

The Secretary was directed to thank the Government for the consideration.

Resolutions from Branches—

The Secretary was instructed to deal with the following resolutions:—

(a) *Lowe River River re* (i) *Appointment of District Nurse.*
(ii) *Visits of D.M.O., and Parochial Dispensary.*

(b) *Wakefield re* (i) *Parochial Dispensary.*
(ii) *Government Savings Bank.*

(c) *Wait-a-Bit re Agricultural Headmen.*

(d) *Craighead re Allsides as Land Settlement.*

(e) *Vaughnsfield re Land Settlement Scheme.*

(f) *Dallas and Constitutional Hill re Sale of Crown Lands.*

(g) *Long Road re* (i) *Land Settlement.*
(ii) *Quota system for Bananas.*

(h) *Lewis Store re resuscitation of quarantined banana lands.*
(i) *Albany re* (i) *Immune bananas.*
(ii) *Forest Reserve.*
(ii) *Police Protection.*
(j) *Warsop re Cottage Police Stations.*
(k) *Bellas Gate re Telephone Station.*
(l) *Spring Garden Rock Spring re Post Office.*
(m) *Waldensia re Sale of Corn.*
(n) *Regale re Protection of Red Peas Industry.*
(o) *Pedro Plains re Free supply of Corn and Peas.*
(p) *Mt. Industry re Protection of Foodstuffs on sale.*
(q) *Drapers re supply of stone for roads.*
(r) *Haddo re road.*
(s) *Red Hills (Clarendon) re road.*
(t) *Brandon Hill (Clarendon)* re (i) *Vocational School.*
(ii) *Afforestation of Bull Head Mt.*
(u) *Highgate re* (i) *Banana Borers.*
(ii) *Itinerant Produce Dealers.*
(v) *Portland Branches Associated re:—*
(i) *Itinerant Produce Dealers.*
(ii) *Water supply (3 resolutions).*
(iii) *Road.*
(iv) *Bridge over Negro River.*
(v) *Telephone for Moore Town P.O.*
(vi) *Government Savings Bank.*
(vii) *District Nurse.*
(viii) *Treatment of Diseased Banana Plants.*
(w) *Jeffreyville re importation of Cyanogas.*

New Members—

On the motion of Mr. McDaniel, seconded by the Chairman, the following were elected members of the Society:—

L. A. Gale, Solicitor, Port Antonio.
A. Wesley McIntosh, Old Hope, Little London.
D. V. Silvera, Solicitor, Morant Bay.
Hon. T. E. Noble Smith, Nianganfoix, St. Andrews, Grenada.
J. T. Dillon, Halfway Tree.
W. James Miller, Burlington, St. Margaret's Bay.
C. A. deLisser, Stokes Field, Port Morant.
C. M. A. Robotham, Brown's Town.
Alex. McKenzie, 36 Beechwood Ave., Collins Green, Cross Roads.
Egbert A. Tai, 59 East St., Kingston.
L. V. E. Burns, "Sealwood," Elderslie.
Mrs. Jack Earle, "Aberdeen," Aberdeen P.O.
Miss Ina Bailey, 126 Duke Street, Kingston.
A. E. Clough, Mt. Pleasant, St. Margaret's Bay.
Vinton Burns, Farm School, Liguanea.

Other Business—

(a) *Report from 1st Vice-President re enquiry re Instructor Kelly and Mr. Segre.*—The Chairman said this was the same matter on which a recommendation had been made by the Instructors Committee and adopted by the Board.

(b) *Letter from S. C. Lindo re adjustment of Tariff, Agricultural Bank, etc.*—Letter from Mr. Lindo with suggestions for protection to red peas, and regarding agricultural credit, also provision for the orderly

marketing of corn and tinned sugar as being necessary to the agricultural improvement of the country was read.

After discussion the Secretary was directed to submit the letter to the Staple and Minor Industries Committee.

(c) *Letter from Major E. F. Moulton-Barrett re membership.*—Letter from Major Moulton-Barrett was submitted with suggestions re life membership with the Society and methods of collecting subscriptions.

The Secretary was directed to refer the letter to the Office Committee which was considering the Revision of the Rules of the Society.

(d) *Resolution from Bethel Town Branch re Marketing of Corn.*—This resolution requested the Board to secure the patronage of the Public Works Department and the Parochial Boads for the purchase of locally produced corn, that a Dehydrating Plant be put up on the Society's premises and that protection for the corn industry be secured.

The resolution was referred to the Staple and Minor Products Committee.

(e) *Authorised Persons: Return of Arrests for Quarter ending* 30.6.35.—The Secretary laid on the table the quarterly return of the arrests made by Authorised Persons to 30.6.35, and stated that a summary of this would be published in the Journal.

(f) *Letter from Beekeepers Committee* (20 *Bray St.*) *re removal of Apiaries.*—The letter was submitted, conveying a protest on behalf of the Beekeepers in the Waltham Park area against the proposal of the Board of Management to remove the Society's apiary from Hylroy to a site on the Hagley Park Road, on the grounds that that area was already overstocked, and that the Society's apiary was one of those listed as infected during the recent outbreak of Foul Brood disease. The letter also pointed out that if the proposed sale of a portion of the apiary took place, it might be a means of spreading the Foul Brood disease, should it recur in any of the colonies that were sold and removed.

Mr. McDaniel moved, that the letter be referred to the Bee Industry Committee.

Mr. Wint said that would mean delay. He was in agreement with the letter. The apiary was instituted for the purpose of helping people and if the move referred to was made, it might be a means of injuring the industry.

The Secretary stated that the argument of having a clean bill of health before the apiary was removed was sound, but as the apiary was to be reduced to 50 colonies, he did not think its location in another area would prove a hardship to beekeepers in such area. In the Waltham Park section the acreage of bananas was increasing daily and although the banana was not a honey-producing plant, bees fed readily on it.

It was decided that the removal of the apiary be delayed and the matter referred to the Bee Industry Committee.

Leave of Absence—

Mr. Cawley applied for leave of absence for two months to go abroad.

This was granted, the members wishing the First Vice-President a beneficial trip.

The meeting then adjourned to Wednesday, 4th September, at 11.30 a.m.

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BYE-PRODUCTS IN THE DAIRY INDUSTRY.

By W. L. BARNETT, M.A., B.Sc., F.I.C., Acting Director of Agriculture.

At the Half-Yearly Meeting of the Jamaica Agricultural Society held in July last, the subject of the Dairy Industry was mooted and it was stated that Jamaica butter cost 1/7d. per lb. to manufacture, whereas imported butter from New Zealand was being retailed at 1/2d. a lb. to the detriment of local producers. One speaker solemnly averred that butter should not be sold at a lower price than 2/- per lb. and it was suggested that either imported butter be subjected to an increased tariff, or, alternatively, that the local producers be paid a subsidy of the order of 6d. per lb. to enable thair local butter to be sold at the same rate as imported butter. The general impression appeared to exist that New Zealand butter was being sold below the cost of production and that it was a subsidised industry.

2. I stated at the meeting that any industry which neglects to utilise its bye-products is economically unsound, and cannot compete against rivals in the same industry who eliminate waste by the production of bye-products which can be marketed at remunerative prices. In other words, I enunciated the axioms that a whole industry is economically greater than a part of the industry, and that the ratio of the sum of the values of all bye-products of an industry to the value of the original raw product is greater than the ratio of the value of a single bye-product to the value of the original raw product. Mass production and manufacture on a co-operative system is bound to oust small scale production and non-co-operation.

3. T. C. Brash, Secretary of the New Zealand Dairy Board, writing in the Year Book of Agricultural Co-operation for 1934, states "In the manufacture of the Dominion's dairy produce, some 90% of the total is carried out by co-operative dairy companies controlled by the farmers who supply the raw materials," also that the Dairy Commission of 1934 was not in favour of a subsidy by way of loan nor the guaranteed price plan.

"A subsidy in the form of an uncontrolled gift satisfies none of the requirements of sound relief, and ultimately benefits neither receiver nor giver."

4. The essential requirements in the Dairy Industry is a supply of good clean milk of high quality, for the supply of which herds of specially bred milch cows, good pasturage and cheap but good feeding stuffs, together with a plentiful supply of good drinking water, are essential.

5. The ideal way of diposing of a milk supply by the dairy farmer is by direct delivery to the consumer for consumption. The food value of milk cannot be rated too highly—not only is it essential for babies and growing children, but it is an improtant article of diet for adults and the aged. Unfortunately, it so happens that owing to the distance which separates the centres of production from the towns where the demand exists, it is a matter of practical impossibility for the consumer to satisfy his requirements directly, and only milk of fairly local production can be marketed for direct consumption. Difficulties of transport and distribution, together with the rate of decomposition of milk, combine to prevent consumers in towns from receiving supplies from remote dairying districts where the farmers have to co-operate to utilise their surplus milk to the best advantage. Even in England, where the methods of distribution are as near perfect as possible and

where the size of the population is sufficient to consume all the milk produced it happens that a surplus of milk never reaches the direct consumer and has to be converted into bye-products.

6. The regional price for milk in June, 1935, for England and Wales was 12d. per gallon, and during that month 85,897,960 gallons were distributed and 39,895,474 gallons were used in the manufacture of milk products and 2,250,631 gallons were manufactured into cheese. In Scotland the Scottish Marketing Board in June, 1935, fixed the average price at 8½d. per gallon. The prices for milk in countries where the production of milk far exceeds local requirements and which have therefore to utilise the milk in manufactures are much lower than those obtained for milk for direct consumption, e.g., lower than the 8½d. per gallon in Scotland. The average price paid for milk containing 3.5% of butter fat, delivered at factories in the United States of America during 1933, was $0.98 per cwt., which is 4.3 pence per gallon, or just over one penny per quart. *Fresh milk sold wholesale in Canada during* the year ending 31st March, 1933, for an average price of $0.14 per gallon, equal to a little less than 1¾d. per quart.

7. In New Zealand, which is about twice the area of England and which has a population of about the same as Jamaica, the number of cattle in 1933 was 4,301,128, and this should give some idea as to the magnitude of the dairy industry which is carried out on intensive lines and which is organised by a system of co-operative manufacture and distribution for the disposal of milk products and bye-products.

8. Milk products comprise those in which whole milk is utilised, such as evaporated milk, sweetened condensed milk and whole milk *powder. Milk bye-products comprise those articles which are manu*factured from one or more of the constituents of milk and comprise tinned cream, cheese, butter, skim milk, condensed skim milk, sweetened condensed skim milk, skim milk powder, sweetened skim milk powder, buttermilk, casein, lactose, oleomargarine, lactic acid and calcium phosphate.

9. The most important bye-product is butter, on account of its high food value both as regards calorific value and vitamine content. Milk is composed of water, butter fat, proteins, lactose or milk sugar, and mineral salts (ash).

10. The butter fat exists in the milk in the form of small globules which are dispersed throughout a continuous phase of water in which the other constituents are dissolved. Owing to the fact that the fat is less dense than the surrounding watery phase, the globules of fat rise to the surface as cream when the milk is allowed to stand. The separation of cream is hastened by centrifugal force and the cream, which separates from the skim milk, is converted into butter by churning which causes the globules of fat to coalesce together into a continuous phase, leaving the water in the form of a dispersion of droplets. The butter is separated, washed with water by kneading to get rid of the buttermilk, and finally salted to varying degrees, depending on its designation.

11. The other bye-products viz.: skim milk and butter milk are in some countries fed to calves and pigs and the value of the food constituents thus used must be taken into account as part of the value of the milk which is thus converted into either veal or pork. The amount *of skim milk thus utilised for conversion into animal flesh is usually* small compared with the total amount available and now-a-days more profitable use is made of the skim milk which contains lactalbumin, casein, lactose and mineral salts. The skim milk may be converted

into skim milk powder, sweetened skim milk powder, condensed skim milk either sweetened or unsweetened, or the casein may be separated by coagulation with acids or rennet followed by separation, washing and drying whilst the whey containing the lactalbumin, lactose and salts may be used either direct as feed for pigs or concentrated or dried as cattle food. The whey may also be utlised for the preparation of milk sugar by concentration and crystallisation in which case the residual liquid can be converted into a phosphate fertilizer, or the lactose can be fermented to lactic acid which is used in various industries and in medicine. Casein finds application in the manufacture of adhesives and textiles and also in the manufacture of plastics and galalith. Galatith is a product made from casein and formaldehyde and is a non-combustible substance which is used in the manufacture of imitation ivory, tortoise shell, buttons, insulators for electrical machinery including radio parts, etc. It can be used for any purpose for which celluloid is employed and possesses the great merit of safety in that it is non-inflammable.

12. In the earlier days of the casein industry, 35 dairy farmers in the district of Sainte-Soulle in France, formed a small society having a central creamery to which they sent their milk for separation of the fat for conversion into butter and at the same place from 366,600 gallons of skim milk obtained during the period 1st June, 1911 to 31st May, 1912, there was separated 114,185 lbs. of Casein which was sold at a profit greater than had previously been received from feeding the skim milk to pigs. The whey, after the casein had been separated, was returned to the farmers who fed it to stock. Casein is also used in the manufacture of horticultural sprays such as Bordeaux Mixture, and oil emulsions, as it increases the wetting power of the spray thereby enabling the chemical constituents to come in better contact with the foliage and so kill off parasites and fungi which might escape from the effects of a spray not containing casein. Such sprays are less liable to cause damage to the foliage especially in the case of mineral oil emulsions, since the casein prevents the formation of large globules of oil which if formed my cause "burning" of the foliage.

13. Another use for casein is the preparation of dilute emulsions of oil with water which are used from sprinklers for setting the dust in streets and incidentally acting as a preventative of the spread of micro-organisms. The casein industry is of growing importance as shown by the fact that in 1929 Canada imported from New Zealand and other countries 329,079 lbs. of casein, valued at $36,122 and in 1930 imported 500,642 lbs. valued at $63,447. In 1931 Canada found a market for casein in Japan and exported 32,480 lbs., and this market will probably develop owing to the extension of Japanese industries.

14. The foregoing should suffice to indicate the importance of the bye-products derived from milk. The average composition of milk in temperate climates is:—

Water	87.27%
Proteids (Casein and Albumin) ..	3.47%
Lactose	4.91%
Fat	3.66%
Ash	0.69%

In computing food values one unit weight of Fat is equal to 2¼ unit weights of Proteids or Carbohydrates (Lactose in the case of Milk).

The total food units expressed in lbs. from 100 lbs. of milk of the above composition will be 16.615 derived as follows:—

From the Proteids	.. ..	3.47
From the Lactose	.. ..	4.91
From the Fat 3.66 x 2¼	.. ..	8.235
	Total units	16.615

In this case therefore the food value of the butter fat is less than half the total food value of the milk from which it can be extracted for conversion into butter. Butter contains about 85% of butterfat. Hence 100 lbs. of milk of the above composition should give 4.3 lbs. of butter.

15. The weight of 10 gallons of milk is approximately 103 lbs. At 3d. per quart, 100 lbs. milk is worth approximately 9/9d. It is obviously incorrect to value the 4.3 lbs. of butter as being equal to the value of the original milk, viz. 9/9d., as this disregards the value of the food constituents in the skim milk.

The value of the 4.3 lbs. butter is clearly equal to $\frac{8.235}{16.615}$ of 9/9d. which is 4/10d. equal to 1/1½d. per lb. Skim milk powder contains about 5% of water and in this example 100 lbs. of milk will give 9.55 lbs. skim milk powder which is worth 4/11d., or approximately 6½d. per lb.

16. This shows that it is clearly wrong to calculate the value of the butter produced as equal to the value of the milk used and to ignore the value of the skim milk, for if this were done then 4.3 lbs. of butter would be worth 9/9d. (2/4d. per lb.) and the skimmed milk worth Nil. Summarising the above, 100 lbs. milk at 3d. per quart and containing 3.66% Fat and 9.07% Solids not Fat, is worth 9/9d. and will give

4.3 lbs. butter worth	.. ..	4/10d.
9.55 lbs. Skim milk powder	..	4/11d.
		9/9d.

17. In tropical countries milk is much richer in fat than is the case of milk obtained in temperate climates, and approximates to the composition 5% Fat, 8% of Proteids and Lactose and 0.5% of Ash. During the year ended 31st March, 1933, the average composition of milk from a herd of 106 cows at Hope was 5.32% Fat, and 8.57% Milk Solids other than Fat. Taking the Ash to be 0.5% it will be seen that 100 lbs. of this milk contain 20.04 food units derived as follows:—

Food units from Fat = 5.32 x 2¼ =	11.97
Food units from Solids (not fat) = 8.57—0.50	=8.07
	20.04

Weight of butter from 100 lbs. milk	=6¼ lbs.
Value of 100 lbs. milk at 3d. per qt.	=9/9d.
Erroneously valuing 6¼ lbs. butter at 9/9d. and neglecting the value of the skim milk gives the butter as worth about 1/7d. per lb.	

True value of 6¼ lbs. butter = $\frac{11.97}{20.04}$ of 9/9 = 5/10

True value of the skim milk .. =3/11
The skim milk will give 9 lbs. skim milk powder
Hence 1 lb. butter is worth 11¼d.
1 lb. skim milk powder 5¼d.

In countries where the wholesale value of milk is less than 3d. per quart, the value of the butter produced is correspondingly lower. The following tables show the variation in value and quantity of butter produced with variations of price and quality of milk. The milk solids not fat being constant at 8.5%, ash content at 0.5%. The tables in each case are for 100 gallons of milk.

100 gallons of milk at 2½d. per quart £4 3s. 4d.

Fat %	Lbs. Butter.	Value of Butter.			Value per lb. of Butter Approx.			Value of Skim Milk. Wt. 92 lbs.		
		£	s.	d.	£	s.	d.	£	s.	d.
5	60.5	2	8	9	0	0	9¾	1	14	7
4.5	54.5	2	6	6	0	0	10¼	1	16	10
4.0	48.5	2	4	2	0	0	11	1	19	2
3.5	42.5	2	1	4	0	0	11¾	2	2	0

100 gallons of milk at 2d. per quart £3 6s. 8d.

Fat %	Lbs. Butter.	Value of Butter.			Value per lb. of Butter Approx.			Value of Skim Milk. Wt. 92 lbs.		
		£	s.	d.	£	s.	d.	£	s.	d.
5	60.5	1	19	0	0	0	7¾	1	7	8
4.5	54.5	1	17	3	0	0	8¼	1	9	5
4.0	48.5	1	15	3	0	0	8¾	1	11	5
3.5	42.5	1	13	1	0	0	9½	1	13	7

100 gallons at 1½d. per quart £2 10s. 0d.

Fat %	Lbs. Butter.	Value of Butter.			Value per lb. of Butter.			Value of Skim Milk. Wt. 92 lbs.		
		£	s.	d.	£	s.	d.	£	s.	d.
5	60.5	1	9	2	0	0	6	1	0	10
4.5	54.5	1	7	11	0	0	6¼	1	2	1
4.0	48.5	1	6	6	0	0	6½	1	3	6
3.5	42.5	1	4	10	0	0	7	1	5	2

18. The table shows why butter can be produced in large dairying countries and sold wholesale at about 8d. per lb.; for retail at about 1/- per lb. since the wholesale price of milk in such countries is less than 2d. per quart.

19. The price of skim milk powder c.i.f. Kingston in 1923 for wholesale lots of 1 ton was equal to 8.4 pence per lb. and in 1935 for cwt. lots was about 4d. per lb. Sold retail it would be more than this, especially if incorporated with other food material such as cocoa, sugar or malt extract. Such preparations sell retail up to as much as 2/6d. per lb.

Skim milk powder finds a variety of uses apart from its main use as a feeding stuff for stock, calves and pigs. Large quantities are used in confectionery and beverages. It can be used advantageously in making bread, as in addition to its food value it gives improved texture, colour and flavour to the finished loaf.

20. Evaporated milk and condensed sweetened milk must contain 8% of Butter Fat according to the standard fixed by Law in Jamaica. It is possible to combine the manufacture of these concentrated milk products with the manufacture of butter by separating excess fat from good quality milk and conversion of the separated fat into butter whilst the standardised milk is concentrated to give either evaporated milk or condensed sweetened milk of standard quality. The usual concentration is from 2½ parts to 1 part by weight, and hence the original milk must be adjusted so that it contains 3.2% of fat. The greater the content of fat in the original milk the more butter it will give for the same quantity of either evaporated or condensed sweetened milk produced. In the case of evaporated milk no expense is incurred for the purchase of sugar which is necessary in the sweetened products.

21. The following figures are illustrative:

Evaporated Milk.

100 gallons of milk will give butter and evaporated milk as follows, according to the Fat % in the original milk:

Fat.		£	s.	d.
3.2%	412 lbs. evaporated milk retailed at 6d. lb.	10	6	0
4.0%	412 lbs. evaporated milk and 9 lbs. butter at 1/-	10	15	0
4.5%	412 lbs. evaporated milk and 15 lbs. butter at 1/-	11	1	0
5.0%	412 lbs. evaporated milk and 21 lbs. butter at 1/-	11	7	0
5.5%	412 evaporated milk and 27 lbs. butter at 1/-	11	13	0

Condensed Sweetened Milk.

100 gallons of milk will give butter and condensed sweetened milk as follows according to the Fat % in the original milk:

Fat.		£	s.	d.
3.2%	412 lbs. C.S.M. retailed at 4½d. lb.	7	14	6
4.0%	412 lbs. C.S.M. and 9 lbs. butter at 1/-	8	3	6
4.5%	412 lbs. C.S.M. and 15 lbs. butter at 1/-	8	9	6
5.0%	412 lbs. C.S.M. and 21 lbs. butter at 1/-	8	15	6
5.5%	412 lbs. C.S.M. and 27 lbs. butter at 1/-	9	1	6

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HIS EXCELLENCY'S SPEECH AT THE HALF-YEARLY MEETING OF THE JAMAICA AGRICULTURAL SOCIETY, July 25th, 1935.

Mr. Cawley, ladies and gentlemen, I should like to say first of all, that I do take my duties, especially as President of the Jamaica Agricultural Society, very seriously, and I am sorry that I am not able to attend more of the meetings. I say only sorry, I say that for a reason, and that is, that it is possibly better for you really that I do not attend so many meetings, as it gives better opportunity for other speakers (laughter); and if I were to take the opportunities already afforded me by Mr. Cawley to-day to deal with some of these questions which he has mentioned, I should be here a very long time, and should be a very much cleverer man than I think I am if I were able to deal with such questions as he has raised, in the course of the meeting here, to the general satisfaction of all concerned. Everything that has been referred to Government, that has come forward recently with regard to legislation with regard to the many industries of the colony, is given consideration, and I do not think that a meeting like this is quite the place for a Governor to make pronouncements of policy; but at the same time I feel that the Agricultural Society's meetings afford an opportunity to the Governor of meeting representatives of the different parishes; of hearing what is being said—I only wish I could stay longer; I am afraid I cannot stay very long to-day; but one is able to read the proceedings and to meet the delegates, and to know that there is a body in this colony which does not depend entirely upon Government for its existence, its supportance, and I hope, its strength (hear, hear). But when I have said that it does not depend entirely upon Government I have something to add; and that is, I think it depends rather too much (laughter). I notice that the most popular resolutions, put in the forefront to-day, are Government subventions to the Jamaica Agricultural Society. There are five resolutions on the subject. Now it is very easy to ask, but it is not always easy to give, and I want to say here and now that while Government is sympathetic—it cannot be anything else,—the Agricultural Department, the Agricultural Society, rather, deserves the full support of Government, there are limits to the amount of help Government can give. Government has increased the grant from £9,500 to £11,000 that is to say, £10,500 for the requirements of the Society, and £500 for the Bee Subvention. It is true that a condition was made with regard to the last £1,000, that a considerable portion of it should be spent on the new building, the new area that has been obtained for the Agricultural Society, which was very largely due to the representations on the subject made by your Vice-President; and a very admirable move it was too; but there is no use leaving a place like that unoccupied, and of no use as it were, and not developing sufficiently the work of the Society, when you have a building site adjoining your present offices, which can be used, and should be used for a definite purpose. I went round last week to have a look at the new building. Work on it had not been started yet, but I am not blaming the Agricultural Society for that. They had a plan, they had approved a plan, and the Public Works I understand is engaged on the estimates now; but I want to see it pushed forward because one of the main sources of usefulness of the Agricultural Society is the supply of seeds. The distribution of these should be most valuable to those who receive them, and also valuable to others who have to do work in connection with them because

it is a branch of work in which the Agricultural Society should show its businesslike capacity; and I do not think any of you can be satisfied with the present condition of affairs in that respect.

Now you have that additional sum and there is no reason why it cannot be expended in a way to make that branch of the service more successful; therefore I hope money will be devoted for that purpose.

Now I have to say a word about my friend, Mr. McKay. He made a speech the other day, in which he referred to various remarks I made with respect to Agricultural Development in the colony. I agree entirely with everything he said, because— of course they were my remarks—and I am quite prepared to endorse them again. But he stated—I do not think he laid the fault to me, but I am certain if it is the fault of Government it must be my fault, because I do not accept any other Government except mine (laughter)—combine!, of course, with the guidance of Members of the Legislative Council—at any rate I am quite willing to take the responsibility; and he told this meeting, I think, that through the action of Government they were deprived of spending a small sum of £25 on teaching the people the value of good manures, and £10 on plots for encouraging juveniles. Well, I am very sorry to say that since I saw it—because I always read what he says as there is always so much in it I always make a point of reading what he says—I went through the estimates and found that both these items had been marked by me by a tick to show that I thought they were worth supporting (hear, hear) but I certainly thought they were going to be able to meet the £35 out of the funds of the Agricultural Society. Anyhow I won't labour the point, but will say that as a mark of our esteem and regard for the Society and also Mr. McKay I am going to ask the Director of Agriculture to give that £35 out of his vote, so that you will get it (applause). While that is only a small thing, and a small gift, it is something towards the additional sum you want. But the whole truth is this, that if you are going to ask Government for additional funds I do not think Government can, especially at this stage, this present financial stage, I do not think Government can simply dole out money like that for the asking. I mean it is not right. We have to think how money is to be spent, and if it will be to the fullest advantage. We give you £11,000, and the amount obtained by the Society's subscriptions do not amount to more than £157, so you just have to put that on one side—that £157. subscribed by members of the Society, and then you have £11,000 given to the Society for its adminstration by Government. But what I suggest is that if you want more from Government it should be put up in a definite form, for a definite object. I certainly am against any general increase by £1,000 or some such amount. If we are to be asked for something let it be something planned to be carried out (hear, hear).

Now the Agricultural Society has a fairly considerable staff, it spends over £7,500 on its field staff and over £2,500 on its headquarter staff. I am not suggesting that the money is not well spent, but at the same time those are heavy overhead expenses, and if we are going to get down to work that is done by actual demonstration; and I would suggest to the Society that in considering these motions to-day that one of the things that they might bear in mind is a little more practical ..onstration combined with agricultural adminstration with regard work in the parishes. We do not want, I do not think altogether, ..ifferent types of Instructors wandering about. I am not ..y are not doing good work. I am not dealing with individuals,

but with the whole system collectively. But where you have plant breeders; and where you have got Agricultural Department officers; and where you have got your Agricultural Society's Instructors, I would suggest that there be one person in each parish who would be more or less in charge of the Agricultural Inspectorate work in that parish, and who knows what is going on with regard to the work. These works are of no use unless they are inspected and my view is—I have made enquiries while travelling round the country and have looked out for Agricultural Instructors—I may say that there is a good deal of travelling about.

I believe £2,400 is spent on travelling, by the Agricultural Society and I do not say that that is not good expenditure, because unless the men travel they cannot see what is going on; but I suggest if you are are going to appoint any more Agricultural Inspectors or increase the number of your field staff, that it should be rather done by placing a man in charge of an area of land.

Now, I should be quite prepared to consider assisting, from the the Government's point of view, in attaching an Agricultural Officer to a Land Settlement Scheme or a Soldier Settlement Scheme and giving him five acres of land, or perhaps a larger area to work as part of his renumeration. Put him there on the land and in addition to that, make his plot a demonstration plot; starting him up with his tools, putting him in a better position perhaps than soldier settlements, but at any rate getting him there. The other people would probably say "Why are we not put in that position?" but that is not the point, the idea is to put him there, to show the others what they should do on their own plots.

I think you get a good deal more value at times by giving a man an actual job to do than to give him £300 or £400 to wander around and tell people how to do it (hear, hear). Put him on a plot and give him something to start with, and pay him on results, and let him keep any bonus or surplus for his work. It is practical demonstration like that that is really going to help the work of the Agricultural Society in the field (hear, hear).

These things you must really work out largely for yourselves; but I am quite prepared to see any deputation you may send out from your meeting here with any proposals of that kind you may put up: (applause). For it must be the policy of Government to support those who help themselves and to assist people in helping themselves. I am absolutely against any sort of loose—I use the word loose because I cannot think of a better word at the moment—fluid, if you like—allotment of funds to be spent. There must be supervision and no Society worth its name, and with the reputation that this Society, has behind it, can in any wayobject to supervision, when accompanied by subvention (laughter and applause).

Now with regard to some of the resolutions. Agricultural Credit—I am sorry about the position with regard to Agricultural Credit. I have every sympathy with the motion I see standing with regard to it, but if I am not mistaken, a similar motion was put up on the last occasion I attended and a suggestion was made that the present Committee should be changed for another Committee if they could not send a report forward early. I believe two members of that Committee are on the platform with me, so I will not say anything more in regard to the Committee, except something in their defence; and that is, our good friend, a man for whom we have very high regard and respect, Mr. Nethersole, who is Chairman of that Committee, has, I am sorry

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› say, been in very bad health recently; and that is one of the reasons 'hy this Committee has not been able to furnish a report. But in ›oking into the matter again I have sent them a letter which I hope ıey will digest, asking them to send in a report and if they cannot gree among themselves, then they can let us have a majority report nd a minority report. Sometimes one finds the best suggestions in ıe minority report (laughter) but if they cannot let us have that report ›on I certainly will have another Committee appointed (applause).

Now there have been two very important reports coming to Government since I was here last—the Report of the Cattle Committee, and he Report of the Dairy Committee. Both these reports are under consideration of Government, but I think I may say that Government is inclined to assist in some way with regard to the suggestions made, as far as it is possible to assist. One proposal was with regard to a meat cannery. As regards the Slaughter House recommendations, steps are being taken with regard to that.

I was sorry to see in the newspaper yesterday that it was announced that I wanted to put up a smaller Slaughter House. It was not the case at all. Sometimes newspapers make inaccurate statements, and that statement was quite inaccurate. I was not trying to impose on the people a smaller abbatoir, but was merely trying to assist them by getting plans of a small one I knew of abroad by way of helping them to get the work done locally instead of waiting for several months to get someone else to come over and do it.

As regards the butchers, they are sending a deputation to see me, and so I will not prejudice or pre-judge the case, but I do think it necessary to give protection to the men who are the main vendors of such an important article of food in this colony. I think a lot of this unauthorised selling, such as selling by people not licensed, is bound to injure the industry, and I think we have to protect the men who have served us for years, and can serve us adequately to the fullest extent. I think something has to be done to that extent.

But in dealing with these questions, I think we ought to remember the position of the consumer. Now, I do not think there has been a time in the history of Jamaica that beef has been cheaper, generally, than it is in the colony to-day. Of course I cannot expect penkeepers and cattle people to be altogether pleased to hear that, but at the same time we have to think of the population, and the fact that a great many of our people would never be able to buy beef and meat as they were able to do to-day but for the price; and when we consider, and when we know that this article is strengthening to our people, it behoves Government to think carefully—Government cannot just rush in and help an industry without thinking of the thousands, the tens of thousands of people benefitting by low prices. You cannot get away from it; and that is one of the responsibilities of Government which we have to look into.

The Dairy Committee made a recommendation that a subsidy should be given of 6d. per lb. on butter which I believe is the same recommendation that was made by the Live Stock Committee of the Agricultural Society. Because, their argument is, they cannot sell their butter at less than 1s. 7d. per lb. It seems a high rate, but at the same time Government may well do something to assist. But it cannot assist the individual. It is no use paying 6d. per lb. to the individual making butter. If you are asking for help in that way it must be for a creamery for a number of people making butter together and not for the individual, because the policy of the Government in this matter is that the Island will benefit very much more by having

the industry established, through a large number of people working for a district and being able to help the cattle owners of that district and possibly others by taking the milk from the cows in that area. The individual does not require—of course he thinks he does—but he does not require help in the same way as an established creamery. But I do not sympathise with all the resolutions. Where I can sympathise and help, however, I am only too glad to do so.

Now one word in conclusion, about Tobacco. I believe something should be done with regard to tobacco. I believe there is a field for tobacco here. Unfortunately, in some respects at the present time, but fortunate in others, we have in England the Director of Agriculture and Mr. Croucher, the soil expert and Mr. Howe of the Farm School. Mr. Howe has been already interesting himself in the matter, and they are in correspondence with a buyer in England whose purchases of cigar leaf tobacco for which I believe there is a big market, exceeds 1,360,000 pounds every year. Now, the market for which this purchaser is obtaining his cigar leaf tobacco is, I understand, very much restricted and that can mean a whole lot for Jamaica. They get some, I am told, from Canada, but only spasmodically, and they are not getting from any other British Colony at the present time; so there is a distinct opening for Jamaica there, and I hope that the result of these investigations will bring us some good (hear, hear).

I have authorised the Director to get in touch with the buyer to see if they have anybody to send out and assist in investigating, and at the same time to come to some agreement in taking our Jamaica Leaf Tobacco (hear, hear). I have authorised him to negotiate in advance, and I hope I will get Council to approve of what I have done in this respect (hear, hear). So that we are taking steps in regard to Jamaica Leaf Tobacco. Consideration is being given to the matter of Virginia Tobacco and so I will not deal with that to-day. At any rate the Director of Agriculture is looking into that, and I hope that we will get a real move on with regard to the cigar leaf tobacco.

Now I think I have dealt with a good deal of the subjects on your agenda and if I am to hear much of your discussion—and I am afraid I have not much time to do so—it only remains for me now to conclude my remarks by saying I was once—I have reminded you of this before —I was once Secretary of an Agricultural Society. I worked in touch with the founder of your Society as one of those earliest connected with it and I have acquired, apart from that sense of duty which I should have as Governor, an interest in the Agricultural Society. But what I say is, if you are going to make that work a success it must be done through the field staff—and it must be done through districts; and it is no good having Grants for the Branch Societies and Associations unless they are going to have their own plots. I had a letter the other day from a district saying they proposed to have a demonstration plot; that they proposed to do this and that—all admirable things and ended up by saying, "We request grants from Government in order to buy the demonstration plot, to put the seed in, and to pay those who are going to work the demonstration plot." Well now, that is all wrong from the very start, because there is no reason why that village should not have its own demonstration plot, and why the people should not work that plot themselves (hear, hear). And unless you are going to supply that measure of assistance it is no good asking the Government for assistance.

I assure you all of my desire to help you on the lines I have put before you for your consideration to-day. (Applause.)

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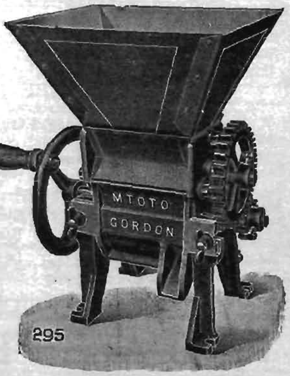

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INSECT PESTS OF THE TOMATO,

By Mr. W. H. EDWARDS, D.I.C., Government Entomologist.

(Continued from the March, 1934 issue of the Journal.)

(D) INSECTS THAT ATTACK THE FRUITS.

The Tomato Fruit Worm. Heliothis obsoleta, Hubn.

Tomatoes whether ripe or still green are frequently found partially eaten by caterpillars. (Fig. 1.)

Fruits attacked by this pest are generally completely ruined, their appearance being spoilt for the market whilst they can't be used for the preparation of canned products on account of the rots which, starting from the wounded tissues, cause the fruits to putrefy rapidly.

The plump looking worms which cause the damage vary in colour from light green to dark brown. When full grown they attain a length of approximately one and three-fourths inches.

The amount of damage caused by that pest can be very heavy, whole clusters of fruits being frequently destroyed.

On the whole that pest can be considered as the most destructive with which tomato growers have to cope in this country. Destruction amounting to 37% of the whole crop has been noticed by the writer in a plantation covering a fairly large area.

Life History and Habits.

The Tomato Fruit Worm is the larval stage of a greyish moth which measures about one and a half inches across the outstretched wings. Those moths fly at night and the female lay their eggs on the plants on which the young larvae will feed.

Its food plants comprise a great variety of cultivated ones as well as many weeds. On account of the serious damages that this pest causes to tobacco, to cotton and to corn, it has become known in various countries under the names of "*Tobacco Bud Worm,*" "*Cotton Boll Worm*" and "*Corn Ear Worm;*" it also attacks beans and other leguminous plants.

The female moth lays as many as a thousand eggs. A large proportion of those eggs are destroyed by small parasitic wasps whilst the young caterpillars also perish in large numbers through outbreak of diseases and the attacks of many natural enemies amongst which are certain species of two winged flies, parasitic wasps, carnivorous beetles and insectivorous birds. We have also found the larvae in the stomach of those Giant Toads (Bufo marinus) which are locally known as 'Bull Frogs.'

A peculiar characteristic of these caterpillars is their cannibalistic instincts, they eat each other so readily that it is difficult to breed them in numbers when it is desired to study their natural enemies.

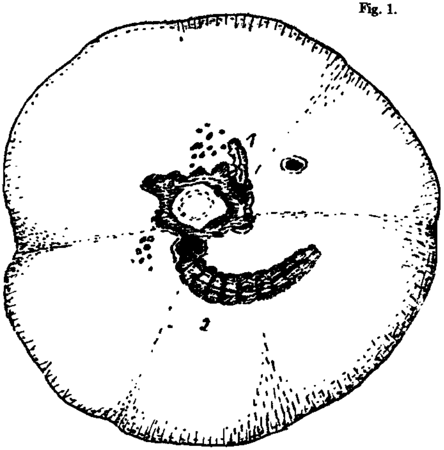
In tomato plots the eggs are laid singly, generally on leaves but also amongst the flowers and fruit clusters.

The eggs hatch in three to five days; the young worms at first feed on the leaves and on the flowers, growing rapidly they soon divert their attention to the fruits.

Each caterpillar does not take all the food it needs from a single fruit, after having started to feed on one it goes to another and punctures several until it buries itself deeply into a ripening one. (Fig. 2.)

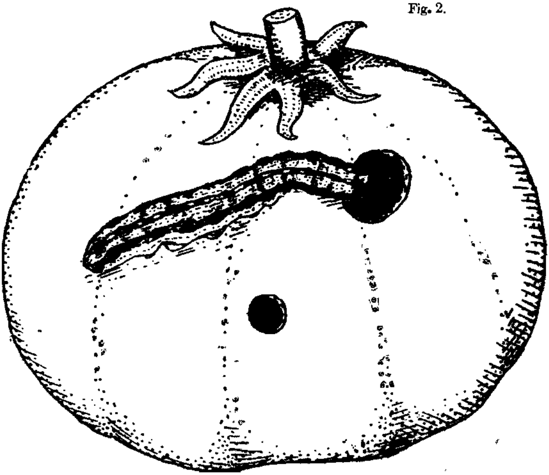
When these caterpillars have taken all the food they need and thus attained full development they bury themselves into the soil where

Fig. 1.



Young fruit-worms (1 and 2) attacking a green tomato at the calyx end.

Fig. 2.



Measures of Control.

On account of the large variety of its food plants, of its prolificacy and of the ability of the moths to fly from field to field it is difficult to prevent altogether infestation of tomato plants by the Fruit Worm. If however, certain precautions are taken and measures of control are systematically applied, its abundance and consequently the amount of damage it causes can be considerably reduced.

1. *Choice of the Situation of the Tomato Plots.*—

As the pest remains in the soil as chrysalis it is not advisable to plant tomatoes following a crop which has suffered from the attacks of that pest nor after one which may have harboured it. Corn, legumes and tobacco are from the local standpoint the more dangerous ones in this respect.

As the female flies from field to field the advisability of laying out the tomato plots as far as possible from plots where crops attractive to the pest are grown is for the same reason obvious.

As this insect as well as several other destructive pests, live on corn, on tobacco, on egg plant, and on okra as well as tomato, it is not advisable when this can be avoided, to grow those crops on lands adjacent to tomato plots. On the other hand it is advantageous to lay tomato plots between banana fields as those plants do not harbour the pests likely to attack tomatoes; banana trees also act as windbreaks, whilst they form natural barriers against the spread of insects which attack vegetables.

2. *Preparation of the Land.*

Early preparation of the soil by thorough ploughing and harrowing will by direct mechanical injury and by exposing of the pupae to adverse environmental conditions, bring destruction to the majority of the insects which are already in the fields.

3. *The Use of Insecticides.*

Though in Jamaica that insect breeds all the year round it is after heavy rains following long periods of drought that they are found in greatest numbers.

Whenever reasons exist for believing that such outbreaks will occur an insecticide such as Lead Arsenate should be applied on the leaves of the plants so as to poison the young larvae. The insecticide can be applied at small cost by adding it at the rate of one pound of the dust to every 50 gallons of the Bordeaux Mixture which is usually sprayed on tomato plants. The Bordeaux is prepared in the usual way and the lead arsenate powder is added slowly whilst the whole is thoroughly stirred.

When on account of an outbreak of the pest applications of insecticide have to be resorted uniquely to combat the pest, Lead Arsenate can be used either in the dust form or in suspension in water.

When used as a dust the insecticide should be thoroughly mixed with lime in the proportion of 1 part Lead Arsenate to 10 parts of lime.

As a spray it may be used in the proportion of 2 lbs. in 100 gallons of water.

4. *Clean Cultivation.*

To avoid attracting the laying moths by masses of luxuriant vegetation tomato plots should always be kept free of weeds, etc., that would also shelter or serve as food for the larvae.

Trap Plants.

Corn plants being the most attractive to this insect can be used as traps on which the insect can be easily destroyed

When corn is sown thinly in rows around tomato plots, the pest coming from adjacent lands remain for a while on the corn plants. These should be inspected twice a week and all the plants found infested by insects should be uprooted immediately, placed in a bag and fed to cattle or otherwise destroyed.

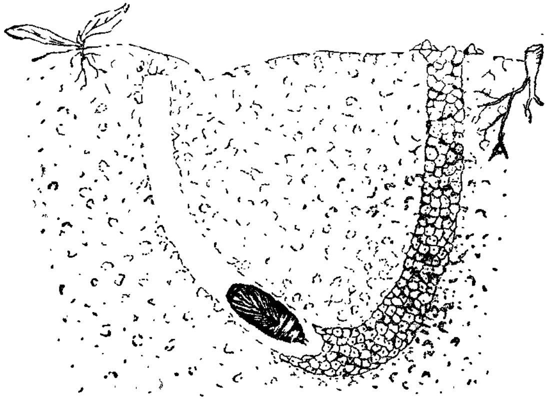
Destruction of infested fruits.

When fruits are reaped it frequently happens that labourers throw on the ground those which are found infested by the worms without destroying these.

At night those worms leave the discarded fruits, creep on the plants and attack other fruits, when full grown they bury themselves into the ground, pupate and ultimately give rise to another generation of the worms.

It is therefore obvious that the most careful attention should be given to the systematic destruction of all worms found infesting the fruits. This can be accomplished by employing special labourers to search and destroy all infested fruits and also by making it a rule that during the crop no discarded fruit should be left on the ground. They should be placed in a basket or bag and fed to pigs or so crushed as to destroy all the worms which may be in their tissues.

Fig. 3.



Chrysalis of the fruit-worm in the soil; On the right disturbed soil where the larva worked its way down and on the left the tunnel it has constructed so that the adult or moth that will emerge might escape to the surface.

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104 HARBOUR STREET.

EDITORIAL COMMENTS.

Corn.—Considerable interest has latterly been aroused amongst corn growers and potential corn growers as to the possibilities of expansion for this branch of agriculture.

There are two outstanding reasons for this. The first is the announcement by the Webster Factory interests of its willingness to contract for the purchase of up to 100,000 bushels of corn of next season's corn crop and a letter from their buying agents publisbed in the August Journal of the Jamaica Agricultural Society as also public interviews given by the same people that any tariff protection given the industry by an increased duty on corn meal would be reflected in an increase in the price of corn paid to the producers.

The second reason is the many forces impelling large and small landowners to seek for new crops for production to replace lost incomes hitherto gained from cattle, pimento and logwood. Protective tariffs always provide knotty problems and contentious viewpoints; for they mean without doubt, especially this instance, increased costs to the consumer. In a country like ours how big a difference there is between the identity of the producer and consumer is in itself difficult to assess. At present however, corn as grain is heavily protected. The duty is 4/- per 100 lbs. plus package tax and for practical purposes the protection may be taken to be 2/6 per bushel. A considerable protection indeed. Cornmeal on the other band, may for practical purposes be said not to be protected. That the production of corn has not expanded or the price maintained to a market level equal to C.I.F. values plus duty and package tax, is merely proof that the consumption of corn as grain has decreased and the present avenues of consumption of corn as grain in certainly not likely to expand. The reasons, are not difficult to understand. Motor transport, and mechanical ploughs and other tillage implements, have displaced thousands of animals hitherto used in drays, waggons, busses, and carriages and the grain feeding for these are no longer required.

The only channels for expanding consumption were the dairy and poultry industries, and both these industries have been encountering depressed prices and could not afford to pay current prices for corn. They adopted as far as was possible cheaper substitutes.

Corn production in the past has been hampered by the fact that with rare exceptions the crop has been produced on poor lands and under primitive methods. The production has nearly entirely been in the hands of the peasant proprietors. The type of lands referred to allowed of no implement work and in many cases marginal rainfall conditions limited yields per acre. Wherever the land was good enough for any other crop corn would not be planted. The limit d demand (which was capable of being filled by the peasant farmers) acted definitely as a deterrent to the larger farmer who possibly by using better land, more advanced cultural methods, and implements would have succeded in lowering cost of production both by increasing the acre yield and saving on costs of cultural operations and so have been able to sell at a prof[illegible] at a sufficiently low price to have stimulated use by the live [illegible]dustries. The average yield of corn per acre at present in the [illegible] hardly be over 15 bushels per acre and so at best it is a low [illegible]nd is not as attractive as most of our other crops.

[illegible]eason however why the average yield on the better lands [illegible]hels per acre, with a cost of 1/6 per bushel in which case

A fruit

To the Planters

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You all know of the excellent quality of any

Charley's Rum

We advise for a light rum that is free from that common rum odour- - -

CHARLEY'S WHITE LABEL.

3/6 per bushel on the farm could yield £4 per acre profit on a six months crop.

It does seem to us that protection which would ensure prices not less than 4/- per bushel Kingston would be warranted and would stimulate production while at the same time the increase to the price of cornmeal would be infinitesimal. As at this juncture we certainly do need some reinforcement to agricultural incomes, which from a number of causes are becoming seriously reduced and which position seriously threatens not only the agricultural prosperity but the general prosperity of the colony, we cannot afford not to give the most serious consideration to any crop that might hold the possibilities of an additional source of income.

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HALF-YEARLY MEETING.

The usual Half-Yearly General Meeting of this Society was held at the Collegiate Hall, Kingston, on Thursday, July 25th, 1935, and was presided over for the first few hours of the meeting by the President, His Excellency Sir Edward Denham, G.C.M.G., K.B.E.; the chair was subsequently taken by the First Vice-President, Mr. T. J. Cawley.

The attendance was a record one, the building being barely able to hold.

His Excellency made a very thoughtful and most interesting speech, and this is being reproduced elsewhere in this issue.

This meeting was the one for the triennial election and the Board elected was as follows, the sequence shown below being that of the number of votes polled. Mr. J. H. Blackwood tied with Mr. S. M. Walker in the number of votes obtained and Mr. Walker was elected by the casting vote of the Chairman.

1. T. P. V. McDaniel.
2. U. Theo. McKay.
3. Hon. Geo. Seymour Seymour.
4. R. A. Burke.
5. Sidney Barton.
6. Rev. W. J. Thompson.
7. Hon. C. A. Reid.
8. T. J. Cawley.
9. D. D. Phillips.
10. D. Theo. Wint.
11. W. Harper Watson.
12. Major A. R. Moxsy.
13. Hon. H. A. L. Simpson.
14. C. O. Cover.
15. Hon. E. A. McNeill.
16. Hon. R. Ehrenstein.
17. S. M. Walker.

Subsequently Mr. T. J. Cawley was elected First Vice-President, Rev. W. J. Thompson, Second Vice-President, and Mr. U. Theo. McKay, Third Vice-President.

Unquestionably, the public interest shown in the Society's operations is growing and no better proof can be provided of this than the fact that the attendance at this meeting was the greatest on record and that at the end of the meeting, which lasted until 6.10 p.m., the attendance was very nearly as large as at any other time of the day.

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THE LOCAL TOBACCO INDUSTRY.

(By A. P. HANSON, Agricultural Instructor for Upper St. Andrew.)

Now that so much interest is being taken in the prospect of the tobacco industry, the following account of correspondence between the Colonial Office in London and the Jamaica Government, beginning with an expert's report on the position of the tobacco industry in Jamaica as far back as the year 1904 ought to prove interesting to readers. The expert referred to above was Mr. F. V. Chalmers who visited Jamaica in 1904, upon the suggestion of the then Commissioner of Agriculture for the West Indies, Sir Daniel Morris.

Mr. Chalmers reported as follows:—"Generally speaking, I find the tobacco of good quality and flavour, but the majority of the leaves are of a heavy nature, consequently, from a commercial point of view, such tobacco cannot compete with other productions for the purposes of cigar wrapping in particular, for cigar purposes generally, because when tobacco is of a heavy nature it is obvious that the weight of a given number of leaves is greater than when the tobacco is of a finer texture. This is a most important point when competing with a country like Great Britain where the duty is very high. The quality of the tobacco, that is to say, *the flavour, or aroma is in nearly every instance excellent.*

Tobacco Soils.

"The foregoing remarks apply to the great proportion of the tobacco now being produced, but I think if more attention were given to the soil upon which this tobacco is grown, so that it was made of a lighter nature, a finer and a lighter tobacco from every point of view might be produced. It must always be remembered that tobacco cannot be produced nor determined by a chemical analysis. The quality of some vegetable productions is largely decided by a determination of its starch, such as the potato, or maize, and other percentages but the quality of tobacco appears to be determined only by the senses of man. Colour, texture, aroma, and combustibility are the points by which the quality of tobacco is estimated. Organic and inorganic salts seem to have considerable effect on these qualities. The organic compounds seem to bear a closer relation to the aroma of the tobacco, while on the inorganic salts depends largely the combustibility. A large proportion of the potash in the tobacco improves the burning, and when potash is present in the form of a carbonate the best results are obtained.

"The growers of bright tobacco find that the tobacco grown on land immediately after the ploughing under of a leguminous crop is deficient in texture and colour. The bright tobacco planters allow their land to grow up to grass and weeds for a year, and plough this under that they may have the land in the best condition for a fine crop; but this is a system applied to the production of American tobacco, namely Virginia, which is of a strong nature, and might not apply for the production of a fine cigar leaf, but the value of wood-ashes as a rule can be safely relied upon as a good expedient.

Shade grown Tobacco.

"I now come to the shade grown tobacco which has been produced at Hope Gardens. I am pleased to be able to report that with one or two objections in the leaf, the product has every appearance when perfected, of being a type of tobacco which is hardly likely for the purpose of cigar manufacturing, principally from a wrapper point of

ew, to be excelled by any other tobacco of the world, and from the timate prepared by the Hon. W. Fawcett of the cost of such production, my opinion a very lucrative industry should arise in Jamaica. But ; me clearly say that the tobacco must be produced in a thin good lour, that is to say, a light level colour, free from spots, and of a rong texture, and last, but by no means least, a positive knowledge to fermentation must be applied or the whole proceeding will be a lure because two fatal conditions will arise, namely, the flavour or oma of the tobacco will not be perfect, the tobacco will be tender d on account of its extreme thinness, very liable to break and conquently will be useless as a cigar wrapper.

"Tobacco that is essentially grown for the purpose of wrapper is in arly every instance the least good for any other part of a cigar; d further more to produce a fine cigar wrapper, such as I firmly lieve can be produced in Jamaica, would present a competitive quality ly to be found in the very pick of Cuban productions namely, it ould contain a delicious flavour, which should make it very valuable leed, more especially as it is universally admitted that at the present ne there was never so much tobacco, and it was never so bad. This nark applies in particular to the whole production of Havana.

Pipe Tobacco.

"Hitherto, as far as my experience goes, the tobacco of Jamaica s never been used as a pipe tobacco, but having regard to the great preciation of American tobaccos of varying flavours, I see no reason ıy this excellent tobacco, though of a thick nature, should not form e of the ingredients in such mixtures for the pipe. With that end view it is my intention to bring the matter before some of the manuturers of Great Britain."

The matter also received attention from the Director of the Imperial

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B. & J. B. Machado Tobacco Co., Ltd.

Institute, who under date December 20, 1904, wrote to the Under-Secretary of State for the Colonies, the following being an extract from his letter.—

"The Trade Report made by Mr. Chalmers on the tobacco of Jamaica is of considerable interest. The fact is already appreciated in this country that Jamaica can produce cigars of excellent quality. The quality, however does not appear to be uniform. The subject is so important that no effort should be spared to take whatever steps are needed for the development of the industry. If the recommendations made by Mr. Chalmers in his report are to be followed, it would seem highly desirable to obtain expert advice with reference to the cultivation, picking, fermentation, and curing of tobacco suitable for the manufacture of cigars. This assistance could best be obtained from Cuba, or from Sumatra, or Florida where suitable varieties of tobacco are successfully produced. This step has been recently taken in connection with the development of the tobacco industry in South Africa, and also in Ireland."

Below is Extract from a Letter from the Board of Trade, Commercial Department (Intelligence Board), to the Colonial Secretary, Jamaica, and dated December 7, 1904.—

"In the report from the expert referred to above, interesting information is (as you are aware) given embodying the results of his enquiries, and investigations into the growing of tobacco in your colony, and the possibility of the establishment of a very lucrative industry in connection therewith and there is no doubt that the particulars contained in this report would be of considerable interest to the representatives of the tobacco trade in this country. The value, however, of the information given would be materially enhanced if the report itself were accompanied by samples of the various grades of tobacco produced, and such samples (if procured) could be exhibited at the office of this Branch in illustration of Mr. Chalmer's report, and could be retained here for examination by tobacco importers in this country, and afterwarsds sent to the Imperial Institute, or otherwise disposed of as might be directed. I should be glad if arrangements could be made for samples of such tobacco to be forwarded to this Branch for the purpose indicated."

Extract from a Minute from the Director of Public Gardens and Plantations to the Colonial Secretary, Jamaica.—

"Professor Duncan states that Jamaica cigars are not of uniform quality. This fact is due to the trade being at present of only small dimensions, and there is no doubt that the quality will gradually become uniform as larger stocks of tobacco are used for an increased trade. Expert advice would be of great assistance, as Professor Duncan suggests, especially as regards the Sumatra tobacco, when it is possible for the Government to spare the necessary money. The Department, has, however, studied the problems of cultivation and curing, with the help of trained Cubans, and has a practical school at Hope Gardens where anyone is welcome to come and learn, and where the apprentices are taught during their time of service. I have sent samples of tobacco to Mr. Worthington, of the Intelligence Branch of the Board of Trade, but I do not think it is possible to do much at present in an export trade of leaf tobacco. The samples should not therefore be put forward as soliciting orders, but only as indicating what Jamaica can produce. All that is now grown is required for the cigar business, which is gradually growing, but large orders might lead again to a catastrophe in our trade. We should aim rather at quality than at quantity."

Extract from a Letter from the Director of the Imperial Institute to the of Public Gardens and Plantations, Jamaica, dated March 30,

"I have received through the Colonial Office a copy of a Memorandum repared by you with reference to certain suggestions made by me in letter dated December 20, 1904 to the Under-Secretary of State for he Colonies as to the steps to be taken to improve the quality of the obacco grown in Jamaica.

I also venture to suggest that it would be well if typical samples of he tobacco grown in Jamaica, and if products such as cigars or pipe obaccos manufactured from them, could be sent here for exhibition n the Jamaica Court of the Imperial Institute.

"The samples should be accompanied by statistics of production and export and information as to the prices at which products of similar quality could be delivered in this country, so that descriptive labels for the exhibits may be prepared, and that we may be in a position to answer any enquiries received from merchants and others to whose notice the exhibits will be brought.

"The Imperial Institute has paid special attention to the question of tobacco cultivation and examination, and would be ready to give any assistance in connection with this industry in Jamaica.

In a letter addressed to the Under-Secretary of State for the Colonies and dated October 21st, 1905, the Secretary of the Admiralty stated that with the assistance of Mr. F. V. Chalmers, the Admiralty obtained a supply (1,506 lbs.) of leaf tobacco from Jamaica but as it transpired that this tobacco by itself was not suitable for pipe smoking, and that there is not at the present time any colonial-grown tobacco suitable for blending with it, arrangements were made for it to be blended with a quantity of Virginia-grown tobacco, the proportion being 1,508 lbs. of Jamaican to 5,075 lbs. of Virgianian. The hints and suggestions offered in the above series of correspondence should prove as interesting and useful to both the local Government and planters as ever they were. These letters, while they stated the merits, as well as the defects, of Jamaica tobacco, also set forth very clearly what steps are to be taken to ensure a trade of lasting benefit to the Colony.

One result of the correspondence and its publicity was the arrival in Jamaica of the big Tobacco Company, Messrs. B. & J. Machado, being a private concern doing business purely on their own, then, and not a trading title as it is to-day. At Temple Hall the Tobacco Company, represented by the late Mr. Antonio Leon rented in August, 1905, fifty-five acres which they increased by October, 1905 to over 69 acres. Things moved merrily along reaching the zenith in 1914 when the acreage under tobacco cultivation attained the handsome figure of 4,200 acres. Some proprietors received as much as £4 per acre per year for tobacco land.

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" 2' 6" x 5' 6"	12s. " "
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CHAMBER DOORS, 3' x 7'	26s. each
" " 3' x 6' 6"	24s. "
" " 2' 6" x 6' 6"	22s. "
SQUARE HEAD GLASS DOORS, 3' x 7'	36s. per pair
" " " " 3' x 6' 6"	34s. " "
CIRCLE HEAD GLASS DOORS, 3' x 7'	40s. " "
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P. P. CORNICE, 3" ... 10s.,	12s. per 100
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CAVETTA MOULDING, 1½"	7s. " "
" " 2"	9s. " "
BACK MOULDING 2"	8s. " "
" " 1½"	6s. " "
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P. P. HAND RAIL, 3' x 4'	45s. " "
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RABBITS FOR FOOD AND PROFIT.

By HARRY E. HEINKEL, California, U.S.A.

(Continued.)

HUTCHES AND HUTCH EQUIPMENT.

The type of hutches in use vary according to the fancy of the builder. Some build very elaborate affairs costing a considerable amount of money, while some tend in the opposite extreme. I have visited many rabbitries and have never found two in which the hutches were alike. However, in generalities they all agree.

The elaborate hutch—and some are extremely so—is a waste of money. In these one may find built-in nest boxes, intricate mangers, and the best in carpenter work. All this is unnecessary. But the hutch which bears this title with difficulty will prove equally expensive. Bad housing methods will prove costly.

I purposely pass by the use of rabbit warrens as this practice is not suited to the commercial producer. Proper control and identification of the stock is lost, and, while it tends to reduce costs in some respects, it increases it in others.

The hutch, its size, construction, and arrangement in the rabbitry is of major importance, In its essentials, it should be convenient, permitting easy handling of the stock, demanding a minimum of labour in cleaning, and permit quick feeding and watering. Sanitation must be considered. It should be economically constructed, yet it should embody permanence and presentability.

Each breeding rabibit should be in a hutch by itself. The size of hutches in general use for utility breeds is four (4) feet in length, 30 inches wide, and 28 to 30 inches in height. It should be about 30 inches above the ground or floor.

Of all the various types of hutches in use the self-cleaning type is most desirable. It is easy and economical in construction and, as the name implies, it is self-cleaning. In its construction 1 x 3 lumber is used for the frame work. A number of hutches may be built at one and the same time. I generally purchase this lumber in 16 foot lengths and build 4 hutches at one time. The floor is made first. Two 16 (or 4) foot lengths are separated every 1⅓ foot by a 28 inch piece nailed in between the 16 foot lengths. Thus in a 4 foot hutch there would be one 28 inch piece at each end and one 28 inch piece spaced 16 inches from each end. The upper edge of the two center cross pieces I usually plane to a point along the center line so that no waste matter may adhere to them. Next I put on the wire floor. For this purpose I use a ⅝ inch wire mesh (sometimes referred to as fruit drying cloth or hardware cloth). It should be 30 inches wide, and is fastened to the floor frame-work with staples. I do not fasten it to the two center cross pieces as to do so might damage the edge planed on them and make it a difficult place to keep clean.

After the floor is completed the upright pieces are put in place. One is placed at each end, broad sides facing each other front and rear. (I make mine 28 inches high.) One is placed, flat side to, at the center of the back, and two are placed in the front to form the framework of the door. The door may be placed either to the side or center of the hutch, as one chooses. Next I make another frame similar to that used for the floor, but use only a single cross piece placed in the centre. This framework is covered with one inch chicken wire, and is then nailed within the upper edges of the uprights previously nailed to the floor.

The door, as previously stated, may be placed either at one side or in the center, and should be of sufficient width to permit easy handling of the stock, or in the handling of the nest box. Both top and bottom of the door should extend to the extreme top and bottom of the hutch, and should be covered with the same kind of wire used for the sides, one inch chicken wire.

If a single hutch is placed by itself both ends are covered as are the front and back, but in building a number at one time the hutches are separated by solid wood partitions one inch thick and only the extreme ends are covered with wire. These partitions should be smooth so that the rabbit is not afforded the opportunity to chew on the wood.

To avoid the possibility of a cold night breeze striking the rabbits it is a good plan to nail a board about ten inches wide along the back of the hutches, and at the end of the tiers, at the floor level. During the cool nights of the rainy season the rabbit will seek the protection of this shelter. Also, it will sometimes happen that a doe, shortly before kindling, will pull so much fur that she is almost bare on her neck, breast and abdomen. When this occurs it is well to place an empty burlap sack over the top of the hutch to prevent a draught which might result in colds or snuffles and the loss of the rabbit and litter.

It will be noted that no provision has been made for legs in this hutch. The reason is that in the semi-tropical climates it is necessary that some form of shelter must be provided for the stock from the direct rays of the sun. A roofed shelter, at least ten feet high, is best. This should have open sides, and the roof may be constructed of any available material. A thatched roof is excellent, and the eaves should extend at least three feet beyond the sides. All of the timbers used in constructing this shelter should be of sufficient strength to insure rigidity and durability. From the cross-beams of this shelter suspend the hutches by means of wire. Baling wire, or its equivalent will do. Place one vertical wire at the front and back every eight feet, being sure that the hutch is level. Then place two diagonal wires (crossed) at these same places, and thus it will be observed that two hutches are supported by twelve wires, and the hutch will be more firmly placed than if it rested on legs. By using this method cleaning is facilitated as there are no legs to impede the sweep of the broom, and, also there are no legs to be replaced which have rotted as a result of the rabbit's urine.

The biggest expense involved in the construction of the above hutch is the floor, but by a careful study this type of floor will prove less costly than any type of wood floor. The wood floor is difficult to repair and, what is most important, to keep clean and sanitary. While if the wire floor is cleaned with a small hand broom, particularly the corners where fur and manure will collect, it will last for many years.

It will also be noted that no provision has been made for a manger. This is for the reason that no two breeders have, or possibly ever will, agree on a particular type. Personally, I am opposed to every type of built-in manger. They are very difficult to keep clean, and unless considerable time and expense is employed they offer too great an opportunity to the rabbit to spend its time in gnawing on those parts most difficult to replace. I have constructed and used many types of mangers and have discarded all of them in favour of what is known as a "front-feeder." Any one handy with a soldering iron can build one, or they may be purchased from the manufacturers of very excellent types, at a reasonable price.

The front feeder consists of a galvanized sheet metal trough, four

inches wide and from eight to fourteen inches in length. This trough is fitted to the inside of the door (in about two minutes) without cutting any wires, and is cleaned by merely opening the hutch door and turning up the trough. It also has a wire guard which prevents the young from sitting in the trough while eating. On the outside of the door is a tray or hopper which fits into the trough and into which the feed is placed. The tray or hopper will hold sufficient hay for a doe and litter for twelve hours. The advantages of this type of feeders are that they allow more space in the hutch, are easy to clean, and are economical.

In the selection of a watering device the earthenware crock is the best. This should be of about one quart capacity, and should be placed to one side of the door extending two-thirds into the hutch. It should be cleaned daily, and thoroughly scal ed once a week. Automatic devices, while desirable, are too expensive for the commercial breeder. Tin cans, and the like, should never be used for feed or water.

Hutches may also be constructed in tiers of two and three. That is, one or two above the other in which case a solid roof must be provided for the lower hutches. However, this method is not desirable unless it is necessary due to lack of space and when the breeding stock numbers many hundreds. In arranging the hutches under the shelter they should be in tiers facing each other allowing a space of four or five feet between them for a passageway. Water should be piped to the shelter and the feed should be kept close at hand.

As a precautionary measure it is a good plan to place a wire mesh around the sides of the hutch shelter which will prevent dogs or other animals from annoying the rabbits or possibly killing them. In the warmer climates it is also well to plant shrubs, trees or vines about the shelter to prevent excessive heat. The question of the need of sunlight, that is, the direct rays of the sun, entering the hutches, is a debatable one. The sun is an excellent source of vitamin D but the breeder in the warm climates cannot avail himself of this source, but must supply it through the medium of food. The sun is also an excellent destroyer of germs, but here, too, the breeder must fill the need by keeping his rabbitry clean. Proper consideration will be given to sources of vitamin D under the heading of Feeds and Feeding, and in the meantime it is best to provide shade and shelter for your stock.

The question is often asked: What type of floor is best for the rabbitry? Well, unless one has the means and inclination to put in a water-proofed concrete floor, the good earth, tamped hard, is the best. If the ground is well tamped it will permit easy sweeping and will allow the water to run off.

I wish to reiterate that in the construction of hutches the breeder may follow his own whims and fancies, but no matter what these may be, it should be easy to clean and keep sanitary, and it should limit the rabbit's opportunity to gnaw on the wood. Even the wire on the sides of the hutch can be put on from the inside, and thus all gnawing is reduced to a minimum. Where profits are figured in pennies the strictest economy must be practised. And the place to begin this economy is in the hutches and hutch equipment.

The practice of building a roof directly on to the hutch is not desirable in the warmer climates in that it does not permit a complete circulation of air. And when this is done it is still necessary to provide an additional shelter to protect the stock from the heat. So it will be more economical to construct the hutches without roofs and use the lumber which would be used for this purpose in building a large shelter

sufficient to provide shade and shelter from rains for all the hutches.

In addition to the regular hutches it is also a good plan to have additional hutches to be used as developing pens and meat-stock pens. These should be constructed as are the regular hutches except that *they should be six to eight feet in length*

Where the producer wishes to build up his own breeding stock a developing pen is necessary. Into this pen the future breeding stock is placed when about eight weeks of age, and a pen six feet in length should not contain more than three young. I place an obstruction in the center extending from front to back in the hutch using an eight inch board over which they jump and encourage this jumping by placing the feed at one end of the hutch and the water at the other. Activity, and space to permit it, is absolutely necessary to develop good breeding stock. The sexes should be kept separate, and in many instances even the young bucks must be kept separate, but does may be kept together until they begin riding each other when they should be placed into their own hutch.

As the name indicates, meat-stock pens are used for all young stock which is sold as fryers. When six weeks of age I remove the young from the does and place them in the meat-stock pen until wanted. This practice saves time in returning the doe to breeding conditions. These pens should be of ample size and be so located as to save time in removing the young when dressing them for the market.

The young meat-stock may be crowded as much activity is not desired. A number of litters may be placed together and their identity marked in the ear with a tattoo needle or marking ink. In this way proper credit can be given to the respective doe for the meat she has produced.

A well-arranged rabbitry will do much toward reducing the labor cost and will tend toward the economy so essential in the success of the commercial producer. When we consider that labor comprises about 32% of the cost in producing one pound of rabbit meat everything possible to reduce this figure should be done. And this holds true in *the small as well as in the large rabbitry.* Do not plan as you go but plan before you go.

The next instalment will cover the principles and practices of breeding.

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(*Extract from Weekly Fruit Intelligence Notes, 17th July,* 1935.)

IMPORTS OF RAW FRUIT INTO THE UNITED KINGDOM.

Fruit and Country whence consigned.	June.			January-June.		
	1933.	1934.	1935.	1933.	1934.	1935.
Grapefruit:						
South Africa	18,114	17,118	19,721	21,303	18,665	23,368
Palestine ..	..	461	2,725	79,914	160,118	352,827
Jamaica ..	40	732	225	35,677	75,012	15,910
Other British	228	1,438	541	2,746	17,465	36,828
United States	59,710	48,534	72,482	214,705	179,300	163,443
Other Foreign	11,076	17,075	30,819	35,946	63,155	65,247
Total ..	89,168	85,358	126,513	390,291	513,715	657,623
Oranges:						
South Africa	67,786	69,954	47,907	70,658	71,199	53,355
Palestine ..	12	3,987	4,997	1,548,849	1,669,400	2,630,630
Other British	6,458	5,973	7,324	27,950	58,066	40,440
Spain ..	417,600	310,869	137,248	4,914,266	3,440,739	2,210,447
United States	119,717	141,072	213,969	244,484	305,988	429,241
Brazil ..	254,426	235,845	212,025	435,577	411,937	354,426
Other Foreign	6,243	1,262	1,421	71,354	71,139	63,052
Total ..	872,242	768,962	624,891	7,313,138	6,028,468	5,781,591

(Extract from Weekly Fruit Intelligence Notes 17.7.35.)

Cabled information relating to the report of the United States Department of Agriculture on the condition of fruit crops in the United States on 1st July states that the condition of Californian oranges shows a decline, *Navels* being placed at 75 per cent. of normal, as against 83 per cent. on 1st June, and *valencias* at 77 per cent., as compared with 84 per cent. Florida oranges are about the same at 54 per cent. The condition of the grapefruit crop has also declined slightly, Florida grapefruit being reported at 49 per cent. of normal, as compared with 51 per cent. in June, California at 79 per cent. as against 87 per cent., and Arizona, 87 per cent. against 90 per cent. The condition of the grapefruit crop in Texas remains unchanged at 28 per cent.

POULTRY NOTES.

(Extract from Hoard's Dairyman, July 25, 1935.)

CONCERNING COSTS OF REARING CHICKENS.

How much does it cost to raise a chicken until he is twenty weeks old?

For farmers who keep cost accounts with the New York State College of Agriculture, the average total cost for each pullet or cockerel raised is $1.28, says P.J. Findlen of the Department of Agricultural Economics. Allowing credit for broilers, the net cost for each bird raised was 92 cents. Subtracting labor, net cost is about 77c. per bird. The cost may vary from year to year; the figures given are for 1931--33.

"About 41 per cent. of the total cost was for feed, 27 per cent. was for the cost of the chicks, and 16 per cent. was for labor.

"Each pullet or cockerel raised had an average value of $1.02. The average return for each hour of labour on chicks during this period was 48 cents.

"It took nine pounds of grain and 19 pounds of mash to raise each bird to 20 weeks of age. Sixty-six hours of labor were needed to raise 100 of them.

"Thirty-one farmers kept accounts of chicks with the colleges from 1931 to 1933. The average number of chicks started on each farm was 1,633, about one-third of which were pullets or cockerels raised; another third were broilers; ten per cent. were pullets sold before they were twenty weeks old; and about twenty per cent. died."

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From 6 or 7 Weeks to 4½ or 5 Months

PIONEER GROWING MASH
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From 4½ or 5 Months on

For Egg Production

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For Table Use Broilers and Capons

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From 1 to 6 Weeks old

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From 6 Weeks old on

Pioneer TURKEY Grower

Pigeons:

Pioneer PIGEON FOOD

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BRANCH NOTES.

All Reports received are acknowledged in this section of the Journal. This month we have only been able to put in print Notes from Branches who have not yet had a publication this year.

Branch Secretaries should **write on one side of the paper only.**

[Ed.

ST. ELIZABETH: Bull Savanna.—Meeting 7.6.35. Present: C. Baron Lewis, presiding, Instructor Lynch, and 22 members. The Post Office at Junction was again discussed. Correspondence was dealt with. Ten shillings was voted for the procuring of prizes for School Children coming highest in the coming terminal examination Instructor Lynch next congratulated the receipients of prizes in the recent Peanut Competition and asked members and others to launch out in the growing of peanuts as it was proven to be suited to the soil. He also stressed the necessity for the growing of timber trees. After discussion as to the best crop to take the place of tobacco. it was suggested that tomatoes be grown. The Secretary was then instructed to invite Major Moxsy, Mr. D. D. Phillips, and Mr. Baxter to attend the next meeting of the Branch and give instructions re the growing of this crop. The National Anthem then brought the meeting to a close.

Another meeting was held on 5.7.35. Mr. D.D.Phillips,a member of the Board of Management, 29 members and quite a few visitors were present. Mr. Phillips was heartily welcomed and asked to give an address. Mr. Phillips spoke exhaustively on the culture of tomatoes, and during the course of his address samples were shown effectively illustrating his subject. For this very practical and instructive address a hearty vote of thanks was accorded him. The Secretary was asked to write Major Moxsy to visit the Branch. A very instructive and enjoyable meeting was brought to a close when the National Anthem was sung.

Alligator Pond P.O. (Miss) E. C. Royal,
Reporting Secretary.

Upper Pedro Plains.—Meeting 5th July. Present: Instructor Lynch, Rev. T. E. McKay, President and 13 other members. A Social Evening was fixed for August 2. Chairman stated that the agitation for a well was bearing fruit. The Instructor gave hints on cashew growing and suggested a Cassava Growing Competition to stimulate intensive cultivation. A vote of thanks was accorded the Instructor for his address. A resolution was passed asking the Parochial Board to provide relief work to alleviate hardships consequent on the drought. The National Anthem ended the meeting.

Pedro Plains. P. O. I. S. Millard,
Secretary.

Retirement.——Meeting 28th June. Instructor M. N. Thompson, 28 members and 21 visitors were present. The election deferred previously resulted as follows:— President, Rev. H. M. McTear, re-elected; 1st Vice-President, Mr. J. A. Dunn; 2nd Vice-President, Mr. Fredk. Kissendal,; 3rd Vice President, Mr. Claude Picart; Secretary and Treasurer, Mr. H. A. Barrett, re-elected with three additional members of the Executive. One Authorised Person reported. The Instructor as a result of discovery that soil in certain parts which he believed was admirably suited for the growing of potatoes. gave a very exhaustive and highly interesting lecture on the cultivation of this crop. A useful discussion followed. Mrs. Thompson (wife of the Instructor) addressed the meeting directing her address especially to the ladies. An enjoyable social then took place. Mr. H. A. Barrett was appointed delegate to the Half-Yearly General Meeting. A very valuable meeting ended with the singing of the National Anthem.

Maggotty P.O. H. A. Barrett,
Secretary.

ST. ELIZABETH: Kilmarnock.—Meeting 13th August. Mr. R. E. Hart, 2nd Vice-President presided. Letter from Mr. G. J. Johnson, re water supply and No. 6 St. Thomas Road, was read as also other correspondence. The Secretary was instructed to write to the Parent Society re the Berkshire Boar. Roll Call showed 8 members present, Authorised Persons reported all correct. Instructor gave a very interesting report of the Half Yearly Meeting. A vote of thanks was given him after which the meeting closed with the National Anthem.

New Market G.O. J. E Monteith,
Secretary.

ST. THOMAS: Aeolus Valley.—Meeting 9th August. Present: Mr. T. O. Rankin in the chair and 13 other members. In previous meeting the branch had laid down a nucleus in aid of the T.B. Fund to which six members contributed. The delegate to the Half Yearly General Meeting gave a report. Discussion on improving the breeds of poultry was continued. A resolution was unanimously passed and it was decided that same be sent to the Parochial Board. One new member was enrolled. The meeting was brought to a close with the singing of the National Anthem.

Yallahs P.O. R. Stewart, Acting Secretary.

PORTLAND: Bybrook.—Meeting 8th August. The President welcomed all present but directed most of his remarks to Mr. A. T. Wilmot the newly appointed Instructor, this being the first meeting at which he was present. To this the Instructor suitably replied. In his remarks he said that he had spent quite a long time in the area as an Inspector of Plant Diseases. As arising from letter from Secretary of the Parent Society re T. B. Hospital each member present promised to contribute in however small a measure to this fund. Books of Rules were read, explained and handed to Authorised Persons. Mr. S. E. Patterson, delegate to Half-Yearly General Meeting gave a very useful account of the meeting. A vote of thanks was accorded him. It was decided to have a debate "Cabbage or Tomato which is more profitable to grow on half acre of land for one year, starting with a shilling" at the next meeting. After minor matters were dealt with, the meeting terminated with the singing of "The King."

Skibo P.O. G. A. Brown,
Secretary.

Rock Hall.—Meeting August 12. Present: Messrs. Jos. W. Dunn (presiding), G. R. Graham, Instructor, twelve members and some visitors. Delegate to Half-Yearly Meeting gave his report. Branch decided to send a donation to Parent Society re T.B. Fund. Instructor's address was based on the growing of Tobacco and Vegetables. It was decided that the Parochial Board be asked to receive deputation from the Branch and petition on road be sent to M.L.C. Previous to meeting the Instructor demonstrated budding. Authorized Persons reported all correct. Minor matters were dealt with and meeting adjourned in the usual way.

St. Margaret's Bay P.O. L. Morgan,
Secretary.

ST. ANN: *Turnberry.*—The monthly meeting which should have been held on the 27th August, was postponed on account of heavy rains during the afternoon. In spite of the rain, however, Mr. Carrington visited the district, and carried out demonstrations on the planting of citrus on the holding of Mr. Dawson. A few members and Instructor Coke were present. On the 30th the meeting was held. Present were; the President, all the

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other officers, several members and two visitors. As arising from the minutes the loan of the ram to neighbouring Branches, as also the slow action of the Parochial Board re the Water Supply were discussed. The report of the Half-Yearly General Meeting was taken and the delegate thanked. The Law re Authorised Persons was read and explained and copies handed to the newly appointed Authorised Persons. The question of a Social followed by an Outing was discussed. The Secretary outlined the plan to be followed. All agreed to support the venture, and a strong Committee was appointed to work out the details. The Secretary then informed the meeting of the corrspondence between the M.L.C. and himself re the Post Office. A petition, on the suggestion of the M.L.C. was now being prepared to be sent to the Postmaster for Jamaica. The treatment of yaws in the district was dealt with. Motions relative to certain irregular or unparliamentary procedure at the last Half-Yearly Meeting as also the unrepresented western section of the island on the Board of Management were passed. The meeting terminated with the singing of the National Anthem.

Blackstonedge P.O. E. L. Welds,
Secretary.

TRELAWNY: Stewart Town.—Meeting June 25. Present: Rev. J. S. Rowe, President; Instructor C. M. A. Robotham, eleven members and three visitors. As arising from the minutes the Variety Fair to be held next year was fully discussed when the Instructor gave some useful hints. Mr. W. T. Miller promised to represent the Branch at the Half-Yearly General Meeting. The Instructor gave a practical talk embracing: (a) A Standardised Jamaica Orange, (b) The care of small stock with particular reference to castration (c) The Vegetable Industry—Tomatoes in particular. The Instructor was thanked. The Roll call was taken. Two new members were enrolled. The meeting terminated with the singing of the National Anthem.

Stewart Town P.O. W. W. Benjamin,
Secretary.

Spring Garden, Rock Spring.—Meetings 13th June and 11th July at the former. There were seventeen members, Instructor Mr. M. N. Thompson and several visitors present. The Post Office Petition. was noted to be forwarded to the Postmaster. The Instructor spoke on the Citrus Competition and asked for information about any remarkable tree. Mr. W. A. McDonald was elected delegate to the Half-Yearly General Meeting and promised to pay his own expenses. Three new members were enrolled. The Instructor gave a brief but interesting talk on Poultry. and promised to continue same at the next meeting. What he said was much enjoyed and it threw great light on the making of Poultry rearing a big success. The President tendered to him the thanks of the House. The singing of The King' terminated a most enjoyable meeting.

On the 11th July, the President, Instructor Thompson, 15 members and several visitors attended. It was unanimously agreed to forward a donation of 3/- towards the Citrus Competition Fund. It was stated that the matter of the Water Supply for Rock Spring was to be taken up by the Parochial Board as soon as funds were available. The Branch decided to support the Cornwall Exhibition. Re donation to the Jubilee Fund, the members all promised to contribute. One member, Mr. Cameron contributed 2/. A new member was enrolled. The Instructor spoke on the Coffee Drive that he wants to undertake and asked the Society to co-operate with him. The Secretary was asked to write to Produce Dealers asking for donations towards this Competition. The Instructor was thanked. The Authorised Person reported all correct. The meeting was brought to a close with the singing of the National Anthem.

Albert Town P.O. (Miss) L. M. Edwards,
Secretary.

Ulster Spring.—Meetings 10th June and 8th July. On 10th June. Instructor Mr. M. N. Thompson, eleven members and a number of visitors were present. The Instructor gave an address on Vegetables Mr. A. A. Edwards was selected delegate to the Half-Yearly General Meeting. The Managing Committee. was asked to meet and draft resolutions to be sent to the Parent Society.

On the 8th July Rev. J. A. Edwards presided. There was a good turnout of members and visitors. Authorised Persons reported all correct. The Law re Protection from Panama Disease was read. Helpful hints were given by the President and Mr. H. L. Currie. Minor matters were dealt with and the meeting adjourned after the National Anthem was sung.

Ulster Spring P.O. (Miss) I. C. Williams,
Secretary.

Wait-a-Bit.—Meeting 12th June. *Present: All Officers,* Instructor and many other members. The Instructor did demonstration work on holdings throughout the day Re Half-Yearly General Meeting delegate was appointed Resolution drafted and

Nomination to the the New Board of Management made. Society voted donation from reserved funds to the Citrus Competition Fund. Other maters were discussed and the National Anthem sung.

Wait-a-Bit P.O. I. L. ROGERS,
Secretary.

CLARENDON: Alston.—Meeting July 4. Present. A. Sutherland, President and 15 other members. The President stated that subscriptions in respect to the goat, were still required. After discussion members agreed to subscribe early. The Secretary was elected as delegate to Half-Yearly General Meeting. Apology for absence from the Instructor was read. The Secretary stated that he would invite prominent gentlemen of the parish to address the Society at its next meeting. It was agreed that the August meeting be held on the second instead of first Thursday of the month. He was asked to send a letter to the Parochial Board making enquiries concerning the petition for a Market at the Alston village. The National Anthem was sung and the meeting closed.

Moravia P.O. T. N. WILSON,
Secretary.

Brandon Hill.—Meeting June 17. Present: The President and 18 other members. Reports from Authorised Persons were submitted. Miss M. Brooks in an address, appealed to the Branch for support towards Lady Denham's Sanitorium Fund. It was decided that £1 be sent from the Branch. A vote of thanks was accorded Miss Brooks. A lengthy discussion re banana stealing next followed, and it was decided that the Authorised Persons form a Committee and make plans to catch the thieves. One new member was enrolled. After minor matters were dealt with, the meeting adjourned by the singing of the National Anthem.

Another meeting was held on 15th July. Present: Instructor Shirley, Mr. N. Robotham, presiding, 24 other members and a few visitors. Authorised Persons reported. Instructor gave an interesting talk, in consequence of which the Secretary was directed to order for the Branch 100 suckers of the S19 bananas which are said to be immune to Panama Disease. The Assistant Secretary was also asked to take orders for vegetable seeds and send same to Major Moxsy to be supplied. After Roll Call and minor matters the House rose.

Colonel's Ridge P.O. E. A. GRAHAM,
Secretary.

Crooked River.—Meeting 12.7.35. Present: R. A. Saunders, presiding, nine other members and four visitors who afterwards were elected members. Discussion took place on the Coffee Improvement Competition. The new Teacher who was elected Secretary was welcomed. appointment of delegate to Half-Yearly Meeting took. place. Reports by Authorized Persons were submitted. Minor matters were discussed The National Anthem closed the meeting.

Crooked River P.O. O. H. WILLIAMS,
Acting Secretary.

CLARENDON: Pleasant Valley.—Meeting 20.8.35. Present: Instructor A. L. Virtue, Mr. H. H. Coote, Bee Instructor and 37 others including a Troop of 8 Boy Scouts, 10 members and other visitors. The President introducing Mr. Coote spoke also on the benefits of an Agricultural Society in a district. Minutes of last meeting were read and confirmed. Correspondence was read. Suggestions for raising funds for the Tuberculosis Hospital Fund resulted in the proposal to have a picnic and concert. Of the programme for the evening Miss Flyter's recitation was much applauded. Mr. Coote spoke on the old way of keeping bees compared with the improved method and dealt with other aspects of the Bee Industry. His arguments were listened to with keenest attention and gave everyone food for thought. A hearty vote of thanks was conveyed to Mr. Coote. The Instructor who was present in the district from early morning transplanting Citrus suckers in the demonstration plot arranged with the members to have an agricultural trip to Grove Place in September. He also expressed his desire to have a Banana Growers Competition. Further discussion on theis matter was deferred for a future meeting. Authorised Persons reported all correct. Meeting terminated with "The King."

May Pen P.O. (MRS.) A. A. FLYTER,
Secretary.

Red Hills.—Meeting August 12. Cash for the purchase of a pulper was collected and it was decided that the pulper be bought early. Arrangements for collecting money for the T. B. Sanitarium were made. Roll call showed 21 members present. Mr. A. E. Mills, delegate to the Half-Yearly General Meeting read his report. He was thanked

Meeting adjourned after the singing of the National Anthem.

Crooked River. G. A. E. MILLS,
Secretary.

WESTMORELAND: Kentucky.—Inaugural meeting held 20th June. There were twelve persons present. Twenty-two members were enrolled and officers were elected as follows:—President, Mr. F. A. Nosworthy; 1st Vice-President, Mr. Edward Gayle; 2nd Vice-President, Mr. Reuben Stone; Secretary, Miss I. A. Reid; Assistant Secretary, Mrs. A. Scott, Treasurer, Mr. F. A. Nosworthy. Instructor F. W. Kelly read and explained the Rules of the Society. The meeting adjourned after the singing of the National Anthem.

Another meeting was held on July 19. It was decided that the Branch should be affiliated to the Westmoreland Branches Associated. The Instructor then addressed the members.

A meeting was arranged for August 23rd, but owing to rains there was no quorum.

Bluefields P.O. I. A. REID,
Secretary.

ST. CATHERINE: Bellas Gate.—Meeting 8th July. Present: Messrs. F. N. Barrett, President, Juveniles, many other members and visitors many of whom became members. Three Authorised Persons reported all correct. The chief matters dealt with were the renewing of membership and the expected visit of His Excellency the Governor. There was also a discussion on the buying of a pulper. Thirty-five new members were added to the membership. Minor matters were dealt with and the meeting terminated with the singing of the National Anthem.

Bellas Gate P.O. A. A. McCURDY,
Secretary.

Content.—Meeting June 26. Present were: Mr. M. M. Greene, presiding, Mr. O. P. Martin, Instructor and many others. Mr. J. S. Dawkins reported on the successful efforts of some of the members to establish a Sub-branch at the District of Planters. Mr. O. P. Martin thanked the workers wholeheartedly and encouraged them in the good work they were doing. Discussion of correspondence and reports from the Authorised Persons and the Juveniles Branch. were dealt with. Mr. S. Douglas rendered a song. Delegate was elected to attend the Half-Yearly Meeting. A very interesting meeting terminated with the singing of the National Anthem.

Bellas Gate P.O. G. S. PLANTER,
Reporting Secretary.

Princessfield.—Meeting 24th June. Present: The President, Instructor C. S. Byles and other members. Delegates to the meeting of the Associated Branches gave their reports. They were thanked. A Committee was formed called "Function Committee' to raise small funds to assist the Branch. After lengthy discussions on many subjects the meeting was brought to a close by the singing of the National Anthem.

Bog Walk P.O. P. E. C. GRAHAM,
Secretary.

Upper St. John's.—Meeting 2nd July. Present: Mr. S. C. M. Bennett, President; Instructor O. P. Martin, and nine other members. Mr. S. C. M. Bennett was appointed Delegate to the Half-Yearly General Meeting. Resolution asking for more Police assistance in the detecting of praedial larceny of bananas due to the competition of the so-called "runners" was passed. The Branch promised its support to the Bartons Branch in its Agricultural Show. The Branch decided to support the Competition re Seedless Oranges. The Committee formed to agitate for improvment of the Postal service for Point Hill and other places arranged to meet. The Instructor gave a lecture, dealing with diseases that affect coffee, cocoa, and citrus, and the pests which attack them. He also recommended remedies. The meeting then adjourned.

Point Hill P.O. L. J. DONALDSON,
Secretary.

ST. ANDREW: Mavis Bank.—Meeting 29th June. There were 10 members present. Mr. D. O. Haase introduced Mr. C. D. V. Henderson, the new Instructor for the District and welcomed him on behalf of Branch. Mr. Henderson replied suitably. The object of the meeting was mainly to resuscitate the Branch. The following Officers were elected: Rev. V. K. R. Cameron, (President); Mr. J. B. Walker, 1st Vice-President; Mr. E. A. Henry, 2nd Vice-President; Miss V. M. Samuels, 3rd Vice-President,; Mrs. I. G. Mair. Treasurer; Mr. D. O. Haase, Secretary; Miss S. J. Buckley, Assistant Secretary. A letter from the Gordon Town Branch re union of the Hill Branches was discussed. The Instructor gave a very encouraging and instructive address. Among other things he asked members

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to bring in others and expressed the hope that these Hill Branches would be at least 100 strong. He asked that the young people be encouraged to attend. He also spoke of the the social aspect of the J.A.S. and signified his intention to do all in his power for the growth and prosperity of the Branch. The meeting terminated with the singing of the *National Anthem.*

A meeting was also held on the 27th July with 14 members present. Soil improvement and water supply for the School were discussed. The meeting closed with singing of the National Anthem

Mavis Bank P.O. D. O. HAASE,
Secretary.

HANOVER: Sandy Bay.—Meeting August 6. Present: Instructor C. C. Hastings; J. B. Lawrence, President; and four other members The Secretary was asked to send a letter to the Parochial Board re cemetery and better water supply for the district. The Branch voted 5/- towards the Jubilee Memorial Fund. The gathering being poor, the Instructor deferred his address for the next meeting. With the singing of the National Anthem, the meeting terminated.

Sandy Bay P.O. R. G. DINHAM,
Secretary.

TRELAWNY: Sawyers.—*Meeting August 31. Present: Messrs. D. J. Scott,* President; 12 other members and a large number of visitors. The matter of getting a boar was discussed. The Secretary was asked to write to the Parent Society about it. Other matters dealt with included discussions on the Cornwall Agricultural Show and the purchase of a ram and Irish Potatoes. The President asked that Authorised Persons show their badges and handcuffs at least once per month. One new member was enrolled. Minor matters were dealt with. The meeting terminated with "The King."

Sawyers P.O. H. S. WILLIAMSON,
Secretary.

ST. ANDREW. Tower Hill.—Meeting 12th August with Mr. J. E. Spencer presiding, Instructor, C. D. V. Henderson and a fair number of the members in attendance. Some members expressed satisfaction and pleasure with the manner in which the Instructor visited and demonstrated on the holdings. The matter of road for the district was again discussed and a special meeting was fixed for the 17th August to deal with the whole matter. Some members reported the appearance of certain disease attacking the leaves of coffee and citrus trees. The Instructor explained what it was, and recommended spraying as a remedy. It was suggested that at the next meeting the the members should consider the question of purchasing a spray on the co-operative system. The Instructor gave an instructive address, touching on various phases of agricultural activities and plainly outlined how erosion of the hillsides may be checked, and the land made to retain its fertility, in connection with which he advised the growing of Overlook Beans. Arrangements were made for the next meeting. The National Anthem was sung, and the meeting stood adjourned.

Mavis Bank P.O. A. V. HAGUE,
Secretary.

Westphalia.—Meeting 9.7.35 Present: Mr. Asariah Campbell 1st Vice-President; Instructor, Chas. D. V. Henderson, 5 other members and the teacher and many schoolars of the School. The Instructor had given a demonstration in trenching at Mr. Asariah Campbell's holding. He gave an instructive address regarding agricultural practices. The meeting adjourned by the singing of the National Anthem.

Mavis Bank P.O. S. PARKE,
Secretary.

ST. MARY: Epsom.—Meeting June 5. Present: Mr. A. C. Gibson in the chair. Ten other members and six visitors. Instructor Mr. D. A. Jones visited the district at an early hour and did budding on several holdings. The Instructor gave a helpful lecture for which he was thanked. The meeting closed by singing of the National Anthem.

A meeting was also held on 3rd July. Present: Mr. A. C. Gibson, 1st Vice-President presiding, Instructor Mr. D. A. Jones and 13 other members. Mr. Gibson as delegate to the Highgate Conference, gave his report. Suggestion from the President that a penny per month be subscribed by each member for a Helping Fund was unanimously agreed to. A helpful and profitable address was given by Mrs. M. Purcell who was very heartily thanked. Two Authorised Persons were nominated. Instructor D. A. Jones gave a practical and helpful address. He was thanked. The meeting rose with the singing of the National Anthem.

Annotto Bay P.O. FRED. A. EDWARDS,
Secretary.

Hampstead.—Meeting 17th June. Present: Mr. C. E. Nicholson, presiding, Instructor Coke, seven other members and two visitors. Secretary was advised to write Mr. A. G. Benjamin about Giant Plantain suckers. Instructor addressed meeting on vegetables, chiefly the cultivation of tomatoes. A vote of thanks was given to the Instructor. Mr. H. G. White-Davis was appointed delegate to Half-Yearly General Meeting. Other matters were dealt with and the meeting closed by the singing of "The King."

A meeting was also held on July 15. Instructor Coke along with some members visited Mr. Freeman's holding where he demonstrated citrus budding.

Hampstead P.O. H. G. WHITE-DAVIS,
Reporting Secretary.

Long Road.—Meeting July 15th. Present: Instructor D. A. Jones, the President, twenty-three members and many visitors. The Branch decided to give a donation of 10/- towards the Jubilee Memorial Fund. Authorised Persons reported on their work. Delegate's report on the Half-Yearly Conference was received. A vote of thanks was conveyed to him. The Instructor addressed the meeting and was thanked. It was decided to ask for a Post Office in the district. After further debate the meeting terminated by the singing of "The King."

Another meeting was held on June 17th. Present: The newly-appointed Instructor Mr. D. A. Jones, the President, nine members and many visitors. The Instructor was welcomed and replied suitably It was decided to give a donation of five shillings towards the fund for the Citrus Competition. Authorised Persons gave their reports. The Instructor in his address explained the importance of the Society in a district and encouraged its improvement. A vote of thanks was conveyed to him. Resolutions for Half Yearly Meeting were dealt with and seven new members were enrolled. The meeting adjourned after the singing of "The King."

Enfield P.O. Z. E. JOSEPHS,
Secretary

ST. MARY: Flint River.—Meeting July 11. Present: Mr. H. G. Vassal, President; Instructor D. A. Jones, 14 other members and a few visitors also a large number of school children who are expected to join the Juvenile Branch. The President was elected as delegate to the Half-Yearly Meeting. Sgt. Chambers of Richmond Division attended to lecture to the Authorised Persons. It was disappointing that only one attended. After he lectured he asked the Branch to get Authorised Persons to attend the next meeting when he would possibly return and give another lecture. He was heartily thanked. Mr. Bernard gave an interesting talk on the "horse-head" cutting of bananas. The Instructor gave a short talk on the caring of the Banana. The meeting then closed with the singing of the National Anthem.

Troja P.O. (Miss) M. R. DAWKINS,
Asst. Secretary.

Richmond Road.—Meeting held on the 26th July. at which the President and 8 other members were present was the first meeting held since the Branch had been re-organised. As there was no agenda before the meeting several members in turn gave their views and experiences on several agricultural matters. Authorised Persons gave their reports, Mr. James Robert reporting an arrest. The National Anthem brought the meeting to a close.

CHARLES GREGG,
Secretary

MANCHESTER: Patrick Town.—Meeting 26th August. Present: S. E. Richards, Esq., President; Instructor, H. A. Darby, 12 members and a few visitors. There were *discussions re Improvement of the Green Pond-Harmons Road; a resolution* having been sent to the Government. Two Authorised Persons present reported all correct in their districts. Instructor gave his address in a comprehensive manner, on "The Planting and Caring of Citrus Fruits" for which a hearty vote of thanks was given him. An appeal was made to the members for a donation in aid of the Jubilee Memorial Fund for the erection of a Tuberculosis Hospital. It was also decided by members of the Branch that a pair of shears and a pair of saws be bought for Branch's use. Much interest was shown in this. After the enrolment of 4 new members, an interesting meeting terminated with "The King."

Old England P.O.

(MISS) O. L. CLARKE,
Secretary.

Other Reports Received.

Branch and Secretary.	Date of Meeting	Attendance.	Business.
St. James.			
Salt Spring (L. E. Dillion)	14.8.35	..	Authorised Persons. Cornwall Show. Canes. Post Office. Address by Instructor Marr.
Manchester:			
Mile Gully. (T. A. Morris.)	26.7.35		Jubilee Memorial Fund. Delegate's Report. Curing, etc. of coffee, corn, tobacco. New members.
Old England (C. P. Watson)	27.8.35		Red Peas Industry. Jubilee Memorial Fund. Accounts.
St. Mary:			
Baxter's Mtn. (R. J. L. Rickett	20.8.35		*Authorised Persons. Debate.*
Epsom, (F. A. Edwards)	7.8.35	17	T. B. Hospital Fund. Delegate's report. Lecture by Instructor Jones.
Long Road (Z. E. Josephs)	9.8.35		Delegate's report. Addresses by Instructor D. A. Jones and Mrs. Jones.
Marlborough (S. L. Sterling)	23.7.35	14	Delegate's report. Bananas.—Quota system. Authorised Persons.
Preston ((I. A. Amiel)	31.7.35		Report of Parish Association Meeting. Bee Industry. Vegetable Competition.
St. Elizabeth:			
Bull Savanna (Miss E. E. Royal)	28.8.35		Vegetable Growers' Association. Addresses by Major Moxsy. Mrs. D. D. Phillips. Supervisor Bacquie, Instructor Lynch and Mr. W. H. Hanson.
Upper Pedro Plains (I. S. Millard)	2.8.35		(Social) Music, Humorous speeches and recitations.
Pepper (M. A. Atkinson	17.8.35		Small Stock. Citrus. Road. Address by Instructor Lynch.
Trelawny:			
Bunkers Hill (P. H. Brown)	8.8.35	7	Coffee Growing Competition. Address by Instructor Thompson.
Deeside (A. O. E. Wright	7.8.35	10	Small Stock. Citrus. Cornwall Agricultural Exhibition. Address by Instructor Thompson.
Duncans (L. V. Sloley)	20.8.35	9	Delegate's report. Small Stock. Coffee Pulper. Grindstone. Addresses by Dr. Embden and others.
Spring Garden (Miss L. Edwards)	15.8.35		Delegate's report. Jubilee Memorial Fund. Visit to Grove Place Farm. Address by Mr. A. Codling.
Wakefield (E. S. Bliss)	6.8.35		Minimum Wage Bill. Roads. Address by Instructor Thompson.
Wilson's Run (G. E. Bailey)	13.8.35	27	D.M.O. for Troy. Authorised Persons. Address by Instructor Thompson.
St. Catherine:			
Bellas Gate (A. A. McCurdy)	12.8.35		Jubilee Memorial Fund. Authorised Persons. Delegate's report. Agricultural implements.

Other Reports Received, Contd.

Branch.	Date of Meeting.	Attendance.	Business.
Phillipsburgh (C. A. Leslie)	23.8.35	11	Water Supply. Banana Industry. Authorised Persons. Governor's proposed visit to parish.
Princessfield (P. G. Graham)	26.8.35		Small Stock. Road and Water Supply. Citrus. Talk by Instructor Byles.
Portland:			
Claverty Cottage (D. Moore)	10.8.35	12	Report on Garden Party. Yellow Yam Competition.
Portland Central (R. Innerarity)	27.7.35		Water Supply. Cemetery. Juvenile Branch.
St. Andrew:			
Content Gap (F. A. Wilson)	17.8.35	9	Finances. Spray. Peanut Industry. Land Settlement. Authorised Persons. Address by Mr. Lyttle.
Westphalia (Stephen Parke)	25.6.35	11	Routine matters.
Darliston (A. A. McDonald)	16.8.35		Cornwall Agricultural Exhibition. Sample Garden. Authorised Persons. Address by Instructor Marr.
Porters Mtn. (D. F. Bowen)	24.8.35	15	Corn Industry. Roads.
Holly Hill (F. J. Cooke)	19.7.35		Roads. Potatoes and other minor crops. Addresses by Mr. M. Segre and Messrs. Tavares and Gunter.
St. Thomas.			
Hagley Gap (J. B. Heywood)	23.8.35		Report from delegate. Vegetable Industry. Road. Citrus and Jubilee Memorial Funds.
Pear Tree River (V. R. McLean)	1.7.35		Election of delegate. Address by Instructor McLaren.
Seaforth (C. L. Stewart)	21.8.35	8	Juvenile Branch. Coconut Mill.
Wilmington (W. A. Thompson)	21.8.35	10	Delegate's report. Appreciation of Excursion to Hope. Authorised Persons.

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ABSOLUTE SATISFACTION IS GUARANTEED

LIST OF AFFILIATED BRANCHES—JULY, 1935.

Branches and Instructors.	Parishes.	Presidents.	Secretaries.	Post Offices.
Aberdeen (Thompson)	St. Elizabeth	L. A. Taylor	N. A. Brown	Aberdeen
Aboukir (Robotham)	St. Ann	A. S. Wilmot	H. M. Marston	Cave Valley
Aeolus Valley (McLaren)	St. Thomas	T. O. Rankine	J. V. Stern	Yallahs
Albany (Jones)	St. Mary	Rev. Henry Ward	Miss S. A. Stewart	Islington
Albion Mtn. (Coke)	ditto	Eml. Thompson	J. E. Francis	Port Maria
Alexandria (Robotham)	St. Ann	Dr. H. T. Strudwick	L. X. Whorms	Alexandria
Alps (Thompson)	Trelawny	E. Christie	Ed. N. Burke	Ulster Spring
Alston (J. A. Graham)	Clarendon	A. Sutherland	T. N. Wilson	Alston
Alva (Robotham)	St. Ann	Josiah Johnson	Miss I. L. Smith	Alexandria
Bamboo (Atkinson)	St. Ann	Jno. Rickman	L. J. Robt. Walker	Bamboo
Bangor Ridge (Wilmot)	Portland	J. O. Grant	H. E. Reddick	Bangor Ridge
Barbican (Henderson)	St. Andrew	T. R. Dixon	W. J. Hawthorne	Halfway Tree
Bath (McLaren)	St. Thomas	E. Alex. James	W. Z. Buckley	Bath
Baxter's Mtn. (Jones)	St. Mary	S. W. Strachan	R. J. L. Ricketts	Annotto Bay
Beckford Kraal (Shirley)	Clarendon	E. Gordon	T. B. D. Reeves	Beckford Kraal
Beecher Town (Atkinson)	St. Ann	Geog. Codner	A. E. Henry	Salisbury
Beeston Spring (Wray)	Westmoreland	J. N. Fletcher	Mrs. O. M. Monteith	Beeston Spring
Belfield (Henderson)	St. Mary	P. R. Somers	Miss M. L. Rennalls	Belfield
Bellas Gate (Martin)	St. Catherine	F. N. Barrett	A. A. McCurdy	Bellas Gate
Belvedere (Jones)	Portland	W. A. Coates	L. O. Blair	Prior Park
Bickersteth (Marr)	St. James	H. A. Denton	Leo. A. Spence	Montpelier
Birnamwood (Wilmot)	Portland	Rev. Percy Steed	G. S. Minott	Spring Hill
Blackwoods (Shirley)	Clarendon	M. G. Boothe	H. C. Robotham	Thompson Town
Blauwearie (Kelly)	Westmoreland	Rev. R. C. Gordon	J. O. Ramsay	Friendship
Bog Walk Central (Martin)	St. Catherine	T. P. V. McDaniel	Fred. E. Richards	Bog Walk
Bohemia (Thompson)	St. Ann	J. B. Graham	V. C. Robinson	Lorrimers
Brae Head (Shirley)	Clarendon	L. R. Davy	Tabrez Tracey	Crooked River
Britton Ville (Atkinson)	St. Ann	A. S. Martin	C. A. Thomas	Claremont
Broadleaf (Darby)	Manchester	J. T. Brown	S. A. Walters	Williamsfield
Brompton (Wray)	St. Elizabeth	J. E. Boothe	E. A. Watson	Fyffes Pen
Brown's Town (Robotham)	St. Ann	H. D. Tucker	T. A. Bramwell	Brown's Town
Bunker's Hill (Thompson)	Trelawny	E. B. Pickering	P. H. Brown	Wakefield
Buxton Town (Byles)	St. Catherine	E. H. Hale	A. B. Walters	Linstead

LIST OF AFFILIATED BRANCHES—JULY, 1935, *contd.*

nches and Instructors.	Parishes.	Presidents.	Secretaries.	Post Offices.
rook (Wilmot)	Portland	S. E. Patterson	E. G. A. Brown	Skibo
tons (Martin)	St. Catherine	W. B. C. Hawthorn	H. T. Jackson	Bartons
l Savannah (Lynch)	St. Elizabeth	W. H. Hanson	C. A. B. Blythe	Alligator Pond
rn Curran (Kelly)	Westmoreland	Egbert Reid	Jas. A. Palmer	Darliston
coon (Hastings)	Hanover	Rev. H. U. Messam	B. E. Campbell	Riverside
mberwell (Jones)	St. Mary	J. F. N. Walters	A. Leo. Giscombe	Annotto Bay
mbridge Woodford (Hanson)	St. Andrew	W. Moodie	E. E. McLarty	Woodford
rron Hall (Coke)	St. Mary	Rev. Jas. MacNee	Miss T. M. Campbell	Carron Hall
Cascade (Hastings)	Hanover	Rev. C. M. Watler	D. A. Webster	Cascade
Castleton (Jones)	St. Mary	C. E. Graham	Miss L. M. Simpson	Castleton
Catadupa (Marr)	St. James	D. N. Walker	L. A. E. Gray	Catadupa
Cave River (Robotham)	Clarendon	M. A. L. Watson	Saml. A. L. West	Aenon Town
Cedar Valley (McLaren)	St. Thomas	L. H. Bewick	Miss S. C. Henry	Cedar Valley
Christiana (J. A. Graham)	Manchester	H. H. Heron	J. M. Coke	Christiana
Claremont (Atkinson)	St. Mary	Maj. Moulton-Barrett	P. M. McCalla	Claremont
Claverty Cottage (Wilmot)	Portland	John Barclay	Stanley T. Young	Skibo
Clonmel (Jones)	St. Mary	J. N. Henry	J. M. Simmonds	Clonmel
Collington (Shirley)	Clarendon	L. R. Davy	Sol. E. Daley	Trout Hall
Comfort Hall (Thompson)	Manchester	D. D. Palmer	W. A. White	Comfort Hall
Content Bois (Martin)	St. Catherine	Rev. D. E. Allen	C. L. Thompson	Bellas Gate
Content Gap (Henderson)	St. Andrew	Laban Lyttle	Fitz A. Wilson	St. Peters
Coopers Hill (G. R. Graham)	Portland	J. Meiklejohn	J. S. Davis	Fellowship
Craighead (J. A. Graham)	Manchester	J. N. Simpson	E. Campbell	Craighead
Craigmill (Wilmot)	Portland	J. T. Lowe	Rev. T. Lawrence	Buff Bay
Crofts Hill (Shirley)	Clarendon	Rev. O. T. Johnston	V. E. Mitchell	Crofts Hill
Crooked River (Shirley)	ditto	R. A. Saunders	I. L Goulbourne	Crooked River
Cumberland (J. A. Graham)	Manchester	E. M. Denton	E. E. Small	Banana Ground
Dallas & Constitution Hill (Henderson)	St. Andrew	H. E. Wainwright	Z. Barclay	Dallas
Dalvey (McLaren)	St. Thomas	S. E. Bryan	J. A. McPherson	Dalvey
Darliston (Marr)	Westmoreland	C. J. Stewart	A. A. McDonald	Darliston
Deeside (Thompson)	Trelawny	John Haye	E. A. Morle	Deeside
Devon Potato Growers	Manchester	A. J. Hay	H. E. Gayle	Mile Gully
Dignum Mtn. (Byles)	St. Catherine	J. U. Parker	D. L. Cox	Spanish Town

LIST OF AFFILIATED BRANCHES—JULY 1935, *contd.*

Branches and Instructors.	Parishes.	Presidents.	Secretaries.	Post Offices.
Drapers (G. R. Graham)	Portland	A. R. Beswick	Miss M. P. Duncan	Pt. Antonio
Duncans (Robotham)	Trelawny	Joseph Stockhausen	J. N. Jones	Duncans
Duanvale (Robotham)	ditto	R. S. Small	S. N. Johnson	Duanvale
East Fairy Hill (G. R. Graham)	Portland	Beresford C. Deans	A. E. Simpson	Fairy Hill
Ebenezer (Darby)	Manchester	G. D. Fulford	L. Fletcher	Newport
Enfield (Jones)	St. Mary	D. N. C. Jones	V. M. McCalla	Enfield
Epsom (Jones)	ditto	W. G. Sampson	Fred. A. Edwards	Annotto Bay
Ewarton (Byles)	St. Catherine	W. C. Irving	W. B. Leslie	Ewarton
Elderslie (Wray)	St. Elizabeth	E. B. Monteith	J. E. Williams	Elderslie
Fairfield (Darby)	Manchester	Bishop Westphal	H. H. Williams	Lincoln
Fair Prospect (G. R. Graham)	Portland	J. C. Burke	M. A. Barrett	Priestman's River
Fellowship (G. R. Graham)	Portland	A. J. Corrie	Mrs. K. V. Corrie	Fellowship
Flint River (Jones)	St. Mary	H. G. Vassall	E. Leo. Fawcett	Richmond
Font Hill (McLaren)	St. Thomas	J. T. Henry	O. H. Cameron	Trinity Ville
Frankfield (J. A. Graham)	Clarendon	U. T. McKay	W. T. Edwards	Frankfield
Fruitful Vale (Wilmot)	Portland	J. M. Whiteley	E. C. Wilson	Fruitful Vale
Garden Hill (Martin)	St. Catherine	Ephraim Chambers	Miss V. H. Price	Point Hill
Georges Plain (Kelly)	Westmoreland	R. C. Tavares	Miss A. C. King	Georges Plain
Gibraltar (Robotham)	St. Ann	P. A. Gager	J. E. Brooks	Gibraltar
Giddy Hall (Wray)	St. Elizabeth	Rev. C. Ferguson	C. M. Reynolds	Giddy Hall
Ginger Hill (Wray)	ditto	A. M. Smith	R. L. Gordon	Ginger Hill
Ginger Ridge (Martin)	St. Catherine	E. N. Thompson	F. R. Ricketts	Ginger Ridge
Gordon Town (Henderson)	St. Andrew	Dr. Chamberlain	I. L. Goulbourne	Gordon Town
Grange Hill (Kelly)	Westmoreland	Rev. J. J. Thomas	C. C. Campbell	Grange Hill
Green Island (Hastings)	Hanover	Rev. A. B. Mullings	J. C. Williams	Green Island
Haddo (Kelly)	Westmoreland	J. Alex. Stewart	Mrs. A. M. Roberts	Ramble
Hagley Gap (McLaren)	St. Thomas	J. N. Gordon	J. B. Heywood	Hagley Gap
Halls Delight (Henderson)	St. Andrew	W. C. Syer	Miss Ruth Higgins	Mavis Bank
Hampshire (Byles)	St. Catherine	D. E. Walker	E. L. Johnson	Riversdale
Hampstead (Coke)	St. Mary	H. W. R. Scott	T. M. Bennett	Hampstead
Hanover Windward (Hastings)	Hanover	S. A. Hill	J. Z. Malcolm	Great Valley

LIST OF AFFILIATED BRANCHES—JULY, 1935, *contd.*

Branches and Instructors.	Parishes.	Presidents.	Secretaries.	Post Offices.
Hector's River (G. R. Graham)	Portland	S. E. Nugent	O. H. Percy	Hector's River
Hattsfield (Atkinson)	St. Ann	I. S. Bryan	M. M. Hibbert	Ocho Rios
Highgate (Jones)	St. Mary	W. R. Aquart	E. W. Parkinson	Highgate
Holly Hill (Marr)	Westmoreland	P. M. Whittaker	F. J. Cooke	Darliston
Hopeton (Marr)	St. James	J. H. Hines	A. R. Clarke	Hopeton
Hopewell (Hastings)	Hanover	I. N. Atherton	C. S. Morrison	Hopewell
James Hill (J. A. Graham)	Clarendon	N. P. McKay	A. B. Eason	James Hill
Jeffryville (Atkinson)	St. Ann	C. Long	W. S. Irwin	Moneague
Jericho (Hastings)	*Hanover*	A. M. Cassells	Miss Z. G. McKenzie	Jericho
Job's Hill (Jones)	St. Mary	R. B. Ritchie	R. S. Owen	Mt. Regale
John's Hall (J. A. Graham)	Clarendon	James Francis	Mrs. Iris Latty	Frankfield
Kellits-Chapelton (Shirley)	Clarendon	S. S. Bailey	Miss I. E. Williamson	Woodhall
Kensington (G. R. Graham)	Portland	Rev. C. A. Wilson	R. S. Clarke	Manchioneal
Kentish (Martin)	St. Catherine	E. E. Peterson	J. E. Wilks	Ginger Ridge
Kilmarnock (Wray)	St. Elizabeth	L. E. Scott	J. E. Monteith	Newmarket
King's Whitehouse (Wray)	Westmoreland	Geo. J. Johnson	L. L. Coke	Whitehouse
Lacovia (Wray)	St. Elizabeth	Rev. H. A. U. Powell	A. J. Clarke	Lacovia
Labyrinth (Coke)	St. Mary	A. Morris	A. P. Atkinson	Gayle
Lawrence Tavern (Hanson)	St. Andrew	Rev. C. S. Shirley	Miss P. I. Donaldson	Lawrence Tavern
Lewis Store (Coke)	St. Mary	R. C. Fullwood	Audley Bullock	Clonmel
Little London (Kelly)	Westmoreland	M. H. Segre	J. R. E. Hall	Little London
Long Road (Jones)	St. Mary	H. E. Collington	Miss Z. E. Josephs	Enfield
Lowe River (Thompson)	Trelawny	Rev. H. Wint	E. W. Bert	Lorrimers
Lucky Hill (Coke)	St. Mary	I. H. Jefferson	F. W. Geohaghan	Lucky Hill
Lucky Valley (Byles)	St. Catherine	G. A. Butler	Mrs. S. B. Woodham	Riversdale
Lennox-Bigwood (Wray)	Westmoreland	D. E. Thompson	C. V. Thompson	Newmarket
Liguanea (Hanson)	St. Andrew	Hon. G. Seymour Seymour	L. E. East	K. S. A. C., Kingston
Macca Tree (Martin)	St. Catherine	T. N. Golding	Miss M. J. Fletcher	Brown's Hall
Mahoe Hill (Shirley)	Clarendon	E. A. Wright	C. J. Robotham	Colonel's Ridge
Maidstone (G. R. Graham)	Portland	N. V. Thompson	M. L. I. Williams	St. Margaret's Bay
Maldon (Marr)	St. James	Rev. McDonald	J. W. Chisholm	Point

LIST OF AFFILIATED BRANCHES—JULY, 1935, *contd.*

Branches and Instructors.	Parishes.	Presidents.	Secretaries.	Post Offices.
Malvern (Lynch)	St. Elizabeth	Rev. S. C. Ashton	Miss E. I. Blake	Malvern
Mannings Hill (Hanson)	St. Andrew	T. A. Jones	Wm. H. Mills	Stony Hill
Marlborough (Jones)	St. Mary	Z. Ffrench	S. L. S. Sterling	Richmond
Marlie Hill (Martin)	St. Catherine	M. Shaw	J. L. Thompson	Brown's Hall
Mavis Bank (Henderson)	St. Andrew	Rev. Cameron	D. O. Hasse	Mavis Bank
Mearnsville (Kelly)	Westmoreland	I. N. Cocker	Mrs. C. E. Reid	Cave
Merrywood (Wray)	St. Elizabeth	R. G. Sinclair	I. Leo. Roye	Ipswich
Mid-Clarendon (Virtue)	Clarendon	C. L. A. Rennalls	R. O. Terrier	May Pen
Middleton (McLaren)	St. Thomas	Jas. E. Johnson	E. S. Blake	Spring Garden
Mile Gully (Darby)	Manchester	A. F. Clarke	T. A. Morris	Mile Gully
Mitchell's Hill (Shirley)	Clarendon	A. D. Thomas	T. S. A. Heslop	Rock River
Mizpah (G. R. Graham)	Manchester	Rev. Jno. Kneale	H. M. Dyke	Walderston
Mocho (Virtue)	Clarendon	T. A. Hall	R. D. Barnes	Mocho
Mocho-Newmarket (Wray)	St. Elizabeth	J. A. Monteith	R. S. Tomlinson	Newmarket
Moore Town, (G. R. Graham)	Portland	J. E. Harris	O. N. Hylton	Moore Town
Moravia (J. A. Graham)	Clarendon	Rev. H. T. Cuthbert	T. E. B. Scarlett	Moravia
Mountainside (Lynch)	St. Elizabeth	K. Adams	A. W. Vanhorn	Mountainside
Mulgrave (Wray)	ditto	C. J. Wright	J. Isaac Groves	Ipswich
Middle Quarters (Wray)	ditto	John Salmon	H. L. W. Wilson	Middle Quarters
Mt. Airy (Kelly)	Westmoreland	M. H. Segre	Miss C. L. Lynch	Negril
Mt. Angus (Coke)	St. Mary	Rev. C. S. Brown	V. A. Bailey	Gayle
Mt. Hannah-Maryland (Hastings)	Hanover	E. A. Peart	I. J. Samuels	Maryland
Mt. Hermon (Wilmot)	Portland	V. O. King	J. L. Hinds	Swift River
Mt. Horeb (Marr)	St. James	Rev. G. S. Grey	S. A. Scott	Mt. Horeb
Mt. Industry (Byles)	St. Catherine	Robt. A. Neita	W. A. Rattigan	Harker's Hall
Mt. James (Hanson)	St. Andrew	G. Allen	G. L. Creary	Mt. James
Mt. Regale (Jones)	St. Mary	G. A. Hylton	T. H. Hannam	Mt. Regale
Nairn Castle (J. A. Graham)	Clarendon	Rev. C. S. Clarke	Miss R. E. Edwards	James Hill
New Green (Darby)	Manchester	E. M. Clarke	E. A. Grant	Mandeville
New Road (Wray)	Westmoreland	R. E. Morris	V. W. T. Fagan	Newmarket
Nonsuch (G. R. Graham)	Portland	Ingram Hamilton	C. S. Hugh Brown	Port Antonio
N. E. Westmoreland (Marr)	Westmoreland		J. A. Edwards	Lamb's River
N. W. Hanover (Hastings)	Hanover	R. J. Anderson	Miss F. I. Gunter	Askenish

Branches and Instructors.	Parishes.	Presidents.	Secretaries.	Post Offices.
Ocho Rios (Atkinson)	St. Ann	L. Isaacs	Miss B. A. Jackson	Ocho Rios
Old England (Darby)	Manchester	J. T. Gordon	C. P. Watson	Old England
O'Meally (Byles)	St. Catherine		Amos A. Henry	Harkers Hall
Orange Hill (J. A. Graham)	Clarendon	Claudius Johnson	C. S. Rycketts	Frankfield
Parks Road (Hanson)	St. Andrew	E. S. Edwards	P. Alwyn Broderick	Above Rocks
Patrick Town (Darby)	Manchester	S. E. Richards	Miss O. L. Clarke	Ellen Street
Pear Tree River (McLaren)	St. Thomas	Rev. C. C. Neilson	Jno. Lee	Port Morant
Pedro (Atkinson)	St. Ann	W. J. Francis	C. L. Beckford	Bensonton
Pedro Plains (Lynch)	St. Elizabeth		Fred. A. Thompson	Mountainside
Pedro Plains Upper (Lynch)	ditto	Rev. T. E. McKay	I. S. Millard	Pedro Plains
Pepper (Lynch)	ditto	O. B. Atkinson	Mrs. M. A. Atkinson	Pepper
Petersfield (Kelly)	Westmoreland	J. T. Turner	J. A. E. Williams	Petersfield
Phillipsburgh (Coke)	St. Catherine	D. Clarke	C. A. Leslie	Redwood
Pisgah (Wray)	St. Elisabeth	E. A. Gunter	Mrs. S. E. Gunter	Springfield
Pleasant Valley (Virtue)	Clarendon	Curzon Newman	Mrs. A. A. Flyter	May Pen
Pondside (Hastings)	Hanover		S. A. Shaw	Great Valley
Porters Mtn. (Hastings)	Westmoreland	D. N. Clarke	D. F. Bowen	Ramble
Portland Central (Wilmot)	Portland	Rev. J. E. Reid	Miss R. Innerarity	St. Margaret's Bay
Preston (Coke)	St. Mary	C. C. Barrett	I. Amiel	Bonny Gate
Princessfield (Byles)	St. Catherine	I. A. Peterson	P. G. C. Graham	Bog Walk
Red Hills (Shirley)	Clarendon	W. A. James	A. E. Mills	Crooked River
Red Hills (Hanson)	St. Andrew	Con. Nelson	Miss D. H. Wilson	Red Hills
Regale (Wilmot)	Portland	A. W. Campbell	Miss G. I. Campbell	Spring Hill
Retirement (Wray)	St. Elizabeth	Rev. H. McTear	H. A. Barrett	Maggotty
Richmond (Jones)	St. Mary	Wm. Thomas	Charles Gregg	Richmond
Richmond Park (Virtue)	Clarendon	J. A. Anderson	Miss L. V. Robinson	Richmond Park
Rock (Virtue)	ditto	T. C. Seainson	H. D. Thomas	Osborne Store
Rock Hall (G. B. Graham)	Portland	W. H. Watson	L. Morgan	St. Margaret's Bay
Rock Hall (Hanson)	St. Andrew	E. J. Gregory	Mrs. B. Heslop	Red Hills
Rock River (Shirley)	Clarendon	Isaac Miller	F. A. Robotham	Rock River
Rock River (Jones)	St. Mary	A. V. Rose	E. Geo. Anderson	Mt. Regale
Roehampton (Marr)	St. James	J. N. Tharpe	J. Aug. Rhoden	Anchovy
Rose Hall (Lynch)	St. Elisabeth	W. H. Pinnock	E. A. Edwards	Rose Hall

LIST OF AFFILIATED BRANCHES—JULY, 1935, *contd.*

Branches and Instructors.	Parishes.	Presidents.	Secretaries'	Post Offices.
Royal Flat (Darby)	*Manchester*	N. Nash	H. L. Johnson	Williamsfield
Rural Hill (G. R. Graham)	Portland	Rev. S. M. Binger	H. C. Anglin	*Long Bay*
Salt Spring (Marr)	St. James	G. W. Anglin	Lieve E. Dillion	Montego Bay
Sandy Bay (Hastings)	Hanover	J. B. Lawrence	R. G. Dinham	Sandy Bay
Santa Cruz (Lynch)	St. Elizabeth	J. C. White	S. Aug. Blythe	Santa Cruz
Sawyers (Robotham)	Trelawny	D. J. Scott	H. S. Williamson	Sawyers
Seaforth (McLaren)	St. Thomas	T. A. Edman	C. L. Stewart	Seaforth
Sheffield (Kelly)	Westmoreland	T. A. Campbell	S. M. Hall	Sheffield
Skibo (Wilmot)	Portland	C. W. Francis	R. C. Watson	Skibo
Sligoville (Martin)	St. Catherine	A. A. Watkis	M. Z. Foster	Sligoville
Smithville (Shirley)	Clarendon	J. E. Deacon	S. N. Brown	Smithville
Snowdon (Darby)	Manchester	H. E. Lewis	Fred. H. Jones	Newport
Somerset (McLaren)	St. Thomas	W. L. Lewis	J. A. Telfer	Trinity Ville
Spaldings (J. A. Graham)	Clarendon	W. A. Wright	N. A. L. Campbell	Spaldings
Springfield (Coke)	St. Catherine	B. A. Forrest	S. C Matthews	Guy's Hill
Springfield (Wray)	St. Elizabeth	Rev. W. J. Driver	J. A. Woodstock	Springfield
Springfield (Marr)	St. James	Rev. J. A. Jones	Eric R. James	Welcome Hall
Spring Garden-Rock Spring (Thompson)	Trelawny	W. A. MacDonald	Miss L. M. Edwards	Albert Town
Stewart Town (Robotham)	ditto	Rev. J. S. Rowe	W. W Benjamin	Stewart Town
Stony Hill (Hanson)	St. Andrew	A. O. Soutar	G. T. Rainford	StonyHill
St. Christopher's (Hanson)	ditto	E. Simons	O. N. Hope	Cavaliers
St. George (Wilmot)	Portland	C. Lyon Hall	B. F. McCalla	Buff Bay
St. Mary Central (Jone)	St. Mary	Rev. T. H. Grant	C. L. Williams	Richmond
Swift River (Wilmot)	Portland	A. A. Lecky	Miss R. C. Gray	*Swift River*
Thompson Town (Shirley)	Clarendon	Rev. A. W. Knott	S. A. Lennon	Thompson Town
Three Hills (Coke)	St. Mary	N. L. Marsh	S. E. Williams	Retreat
Toll Gate (Virtue)	Clarendon	L. Logan	Miss M. L. Hall	Osborne Store
Top Hill (Martin)	St. Catherine	W. R. Wilks	E. M. Johnson	Lluidas Vale
Tower Hill (Henderson)	St. Andrew	J. E. Spencer	A. V. Hague	Mavis Bank
Tranquillity (Wilmot)	Portland	M. C. Williams	N. W. McClery	Balcarres
Trelawny Upper (Thompson)	Trelawny	Rev. Sanguinetti	S. A. Powell	Albert Town
Troja (Byles)	St. Catherine	S. H. Douglas	E. A. Christie	Troja
Troy (Thompson)	Trelawny	N. A. Lilly	L. A. Parker	Troy

LIST OF AFFILIATED BRANCHES—JULY, 1935, *contd.*

Branches and Instructors.	Parishes.	Presidents.	Secretaries.	Post Offices.
Tryall Hill (Jones)	St. Mary	J. S. Dyke	A. A. Constable	Annotto Bay
Turnberry (Coke)	St. Ann	Z. Rawle	E. L. Welds	Blackstonedge
Tydixon (Martin)	St. Catherine	Rev. H. Simpson	J. C. Johnston	Moneague
Thornton (McLaren)	St. Thomas	Alfred Williams	N. A. Patterson	Sunny Hill
Ulster Spring (Thompson)	Trelawny	Rev. J. A. Edwards	Miss I. C. Williams	Ulster Spring
Unity (Hanson)	St. Andrew	J. S. Cameron	Miss I. H. Wilson	Lawrence Tavern
Upper Retirement (Robotham)	St. Ann	L. A. Pinnock	Miss B. A. Anderson	Watt Town
Vaughansfield (Marr)	St. James	F. T. Sinclair	Mrs. C. K. McFarlane	Point
Victoria (Byles)	St. Catherine	Rev. J. M. Walters	Miss M. L. Burrell	Linstead
Victoria Town (Darby	Manchester	Rev. J. W. Grant	A. E. V. Brown	Victoria Town
Wait-a-bit (Thompson)	Trelawny	V. C. Robotham	Miss I. L. Rogers	Wait-a-bit
Wakefield (Thompson)	ditto	Rev. R. A. L. Knight	E. S. Bliss	Wakefield
Waldensia (Robotham)	ditto	J. A. Hines	C. C. Lee	Sherwood Content
Wallingford (Coke)	St. Mary	T. S. Phillips	Mrs. Adina Phillips	Guy's Hill
Warsop (Thompson)	Trelawny	Chas. Wright	U. K. Walters	Warsop
Waterloo (J. A. Graham)	Manchester	E. C. Coley	Miss B. A. Bell	Harry Watch
Water Mount (Martin)	St. Catherine	R. S. Cole	Miss I. I. Thompson	Water Mount
West Fairy Hill (G. R. Graham)	Portland	Frank Harrison	R. O. C. Kelly	Swift River
Westphalia (Henderson)	St. Andrew	James Orgill	Stephen Parke	Mavis Bank
West St. Elizabeth (Lynch)	St. Elizabeth	R. A. Bennett	B. A. J. Forbes	Black River
Whitehorses (McLaren)	St. Thomas	S. O. Dalton	J. N. Morris	Whitehorses
Wilbury–Lemon Hall (Shirley)	Clarendon	G. Richardson	S. M. DaCosta	Crofts Hill
Williamsfield (Kelly)	Westmoreland	C. E. Thompson	S. M. Brookes	Glen Islay
Wilmington (McLaren)	St. Thomas	C. M. Hart	W. A. Thompson	Morant Bay
Wilson's Run (Thompson)	Trelawny	W. Motto	Miss G. E. Bailey	Troy
Wood Park (Coke)	St. Mary	W. S. Robinson	C. L. A. Stuart	Pembroke Hall
Yallahs (McLaren)	St. Thomas	Rev. W. C. Bennett	L. T. T. Barrant	Yallahs
Yorke Valley (Robotham)	St. Ann	J. B. Morrison	J. E. Hall	Borobridge

Branches that have submitted no Lists—July, 1935.

Branches and Instructors.	Parishes.	Presidents.	Secretaries.	Postal Address.
Bethel Town (Marr)	Westmoreland		L. G. Baldie	Bethel Town
Bloxburgh (Henderson)	St. Andrew		Miss W. C. Darby	Kalorama
Brandon Hill (Shirley)	Clarendon		Miss E. A. Williams	Colonel's Ridge
Brown's Hall (Martin)	St. Catherine		W. S. Jones	Brown's Hall
Chesterfield (Hanson)	St. Mary		Miss D. A. Wright	Castleton
Jackson Town (Robotham)	Trelawny		A. S. Sudlow	Jackson Town
Keith (Robotham)	St. Ann		S. B. Haughton	Keith
Lambs River (Marr)	Westmoreland		U. L. Brown	Lamb's River
Padmore (Hanson)	St. Andrew		Jos. Brooks	Red Hills
Paul Mtn. (Martin)	St. Catherine		Rev. Boyce	Spanish Town
Pike (J. A. Graham)	Manchester		I. E. R. Green	Coleyville
Pratville (Darby)	Manchester		D. E. Dixon	Pratville
Southfield (Lynch)	St. Elizabeth		R. W. O'N. Speid	Southfield
Tom's River (Hanson)	St. Andrew		H. L. Naylor	Castleton

There are 52 Branches which have not yet affiliated this year.

ASSOCIATED BRANCHES.

Parishes.	President.	Secretary.	Postal Address.
Clarendon (No List)		T. A. Hall	Mocho
Hanover	Rev. A. B. Mullings	D. A. Webster	Cascade
Manchester	Hon. T. Anderson	J. M. Coke	Christiana
Portland (Not Affiliated)		R. G. Morris	Comfort Castle
St. Andrew (No List)		H. Leo. Brown	Halfway Tree
St. Ann	L. W. Levy	T. A. Bramwell	Brown's Town
St. Catherine	Hon. J.H. McPhail, Hon. Pres. T. P. McDaniel (Pres.)	F. R. Ricketts	Ginger Ridge
St. Elizabeth (Not Affiliated)		Geo. J. Johnson	Whitehouse
St. James	Hon. F. M. Kerr-Jarrett	J. Aug. Rhoden	Anchovy
St. Mary	S. M. Walker	E. B. Johnson	Carron Hall
St. Thomas (*No List*)		Mrs. G. E. Rowe-Stanley	Morant Bay
Westmoreland	M. H. Segre	R. C. Tavares	Grange Hill

POULTRY KEEPERS.

To note that the famous

KARSWOOD POULTRY SPICE

may now be obtained from the Jamaica Agricultural Society.

This valuable tonic is highly recommended as an egg producing stimulant and is much used among poultry owners in all parts of the world.

EVERY—
"MICHELIN"
Tells the STORY—
Of its RIDE to FAME
and GLORY.

-BURKE'S-

SERVICE STATIONS

Ltd.

Half-way Tree.

70, Harbour St.

Constant Spring.

IS YOUR BATHROOM A BACK NUMBER ?

There is nothing more essential to the family's good health and comfort than a hygienic, modern well appointed bathroom.
Refit your bathroom now, we have everything in

SANITARY FITTINGS

Baths—5′ 6″ & 6′. Basins. Bidets.
Low Down Closets. High Up Closets.

The Standard Furnishing Co., Ltd.,

127—129 Harbour Street, (Opposite Colonial Bank.)

ALSO RETAILERS IN FANCY GOODS, HARDWARE, ETC.

LUMBER ! LUMBER !! LUMBER !!!

From 11/- per 100 ft. up.

Zinc Sheets from 1/6 up, Paints, Nails, Glass, Wire, Hinges, etc., etc., Cheapest Prices.

KINGSTON LUMBER & HARDWARE CO.

Branches Tryall Tur...

P.O. Box 69. DUKE ST. WHARF, Kingston.

GOVERNMENT STUD FARM

GROVE PLACE.

BULLS STANDING FOR SERVICE.

JERSEYS:
Etta's Pogis.
Glen's Prefect.

GUERNSEY:
Hope Foremost 5th.

RED POLL:
Leone's True Lad.

MONTGOMERY-GUERNSEY:
Cortes.

MONTGOMERY-BROWN SWISS:
Justice.

FEE. 10/- per Cow, with one month's free pasturage—after that 4/- per month.

NOTE—COWS MAY BE SENT FOR SERVICE TO GROVE PLACE SIDING FROM ANY RAILWAY STATION FOR AN INCLUSIVE FEE OF £1 THIS SUM COVERS SERVICE AND COST OF RAILAGE TO AND FROM GROVE PLACE.

SMALL STOCK.

Suffolk Ram:
Tendring Token.

FEE: 5/- per Ewe, one month's free pasturage; 1/6 for the first month after the free month—after that 5/- per Ewe per month.

SWINE:

Imported Berkshire Boar, RICHINGS BON ACCORD.
Native Berkshire Boar, GROVE MARQUIS.

FEE. 5/ per Sow with three days' free keep; after that, sixpence per day for feed and keep.

HORSEKIND:

Imported Thoroughbred Stallion—SNOW BOY.

FEE. £5 5/- for Thoroughbreds and £2 for ordinary mares. One month's free pasturage; after that 8/- per month per head.
Imported Proof Ass—KENTUCKY BOY.

FEE. £1 per mare. *Pasturage conditions as for the Stallion.*

All Service Fees are payable in advance. Animals must be free from contagious other diseases, and be clean of ticks.

For all particulars apply to:—

The Superintendent,
Grove Place, Mile Gully

Jamaica Agricultural Society.

MEMBERS' EXCHANGE COLUMN.

The following are offered *for sale*.

Description Produce or Livestock.	Price.	Name.	Address.
Five Essex-Berkshire Boar pigs, born 2nd March, 1935.	£3 3s.	Secretary J.A.S	Kingston
1 half-bred Suffolk Ram	£5	D. S. Simmons	Walkerswood
Gordon Coffee Pulper	£5	A. Duperly	C/o G. P. O. Kingston Kingston
Radio 3 V. Felsen	£2 10/-	ditto	ditto
410x22 Gun Rifle	£3 10/-	ditto	ditto

THE SECRET OF HEALTH, LONG LIFE AND REJUVENATION

ELECTRICITY

Overbeck's Rejuvenator does what drugs can never do.

Chronic cases of all kinds in people of all ages completely cured. Patients treat themselves in their own homes without aid. There are no forms of shock whatsoever. For Rheumatism, Chronic Indigestion, Heart and Kidney affectations, Constipation, Catarrh, Irregular Blood Pressure (High or Low), Diabetes and all forms of Constitutional Ailments. Try Overbeck's Rejuvenator—

THE ELIXIR OF LIFE MACHINE

OBTAINABLE FROM

JAS. A. CASELEY, - LASCELLES BUILDING.

FOR **FISH MANURE**

AMO-PHOS

ROLL-CUT SECATEURS

Barb Wire Agricultural Forks Budding Knives

GO TO

STIVEN'S COLOSSEUM, LTD.

113 HARBOUR STREET, KINGSTON.

THE JOURNAL

OF THE

Jamaica Agricultural Society.

The more people do the more they can do: he who does nothing renders himself incapable of doing anything; while we are executing one work we are preparing ourselves for undertaking another

Vol. XXXIX. OCTOBER, 1935. No. 10.

BOARD OF MANAGEMENT.

The regular monthly meeting of the Board of Management of the Jamaica Agricultural Society was held at the Office of the Society, 11 North Parade, Kingston, on Wednesday the 4th September, 1935, at 11 30 a.m. There were present: Rev. W. J. Thompson, Second Vice-President in the chair, Mr. U. Theo. McKay, Third Vice-President, Mr. W. L. Barnett, Acting Director of Agriculture (ex-officio), Hons. C. A. Reid, and G. Seymour Seymour, Messrs. Sidney Barton, Rudolph Burke, C. O. Cover, T. P. V. McDaniel, D. D. Phillips and D. T. Wint, Major A. R. Moxsy: Mr. P. St. L. Bacquie, Supervisor of Instructors and the Secretary, Glaister Baxter.

Confirmation of Minutes of the previous Meeting.—Copies of the minutes of the last meeting having been sent to the members of the Board, they were taken as read.

Mr. Wint said in the matter of the appointment of Committees there was a correction to be made.

The Secretary pointed out that it had already been made and appeared in the copy of the minutes submitted for confirmation. The copy sent to the members had not been proof read before issue.

Mr. Cover said the minutes should be proof read before being sent out.

The Secretary was instructed to not this.

On the motion of Mr. Watson, secon'ed by Major Moxsy, the minutes were confirmed.

Matters arising out of the previous Minutes.—

(a) *Secretary's Statement* was submitted as follows:—

3rd September, 1935.

To the Board of Management:

Gentlemen:

No reply has been received from the Colonial Secretary re the appointment of the Bee Instructor as an Authorised Person under the Bee Diseases Law.

The Bee Industry Committee co-opted Mr. P. W. Sangster and Dr. Stephen Lockett as members of the Committee. Both gentlemen have accepted their appointments.

Enquiries are being made with reference to complaints of Authorised Persons referred by the Board to the First Vice-President and Secretary.

The Acting Surveyor General has advised the letting of land to agriculturists around Middle Quarters for the planting of rice at a peppercorn rental.

All other correspondence consequent on the deliberations of the Board at their last meeting has been dealt with.

(Sgd.) GLAISTER BAXTER,
Secretary.

(b) *Estimates of costs for Storage Accommodation and Modifications of present Buildings.*—The Secretary read the following letter from the C.S.O.

24th August, 1935.

Sir,

With reference to your letter No. 112 of the 8th July, 1935, I have the honour to transmit herewith a plan showing the proposed alterations and additions to the premises at No. 10 North Parade, Kingston, which are estimated to cost £1,600 and are made up as follows:—

(1) New Steel Storage Shed (against west boundary wall)	£585
(2) New Steel Storage Shed (against office building)	300
(3) New Steel Storage Shed (against north boundary wall)	400
(4) Alterations to office accommodation	140
(5) New roadway and gate	150
(6) Removing old outbuildings and re-erecting drying trays in new position	25
	£1,600

(Sgd.) A. R. Dignum,
for Acting Colonial Secretary.

The Secretary stated that he had brought the matter to the attention of the First Vice-President before he left the Island and he had addressed a letter to the Governor as follows:—

August 27th, 1935.

His Excellency
Sir Edward Denham, G.C.M.G., K.B.E.,
President Jamaica Agricultural Society,
King's House, Kingston.

Your Excellency,

I have the honour to advise you in your capacity as President of the Jamaica Agricultural Society that I shall be away from the island for the ensuing eight weeks, sailing this afternoon on the S.S. "Jamaica Settler" for England.

2. "The Secretary of the Jamaica Agricultural Society has shown me estimates of costs, forwarded by the Hon. Colonial Secretary, covering the construction of the proposed storage accommodation and modifications of present buildings in connection with the premises Nos. 10, 11 and 12 North Parade, now occupied by the Society, amounting to £1,600.

3. "The details of these estimates disclose that three storage sheds will cost respectively £585, £300, and £400, totalling £1,285. In addition to this, necessary modifications of present office buildings are estimated to cost £140, new through roadway and gates £150, removal of old outbuildings and re-erecting drying trays in new position £25.

4. "Your Excellency will note that it is proposed to spend on storage accommodation and work in connection therewith 91 per cent. of the total amount estimated as costs; the remaining 8¾ per cent. covers small alterations to office premises, but this will also provide for better accommodation to the public in connection with the counter purchase of seeds, which at present, I regret to say, is far from satisfactory.

5. "As Your Excellency is aware there is only £1,000 set aside for the purpose, and it would seem to me very regrettable should it become necessary to postpone any of the suggested improvements this year, as they are very much needed.

6. "I would therefore beg to make an appeal on behalf of the Society that an additional sum be asked of the Hon. Legislative Council sufficient to carry through the improvements as planned."

I have the honour to be,
Your Excellency's obedient servant,
(Sgd.) T. J. Cawley,
First Vice-President, Jamaica Agricultural Society.

Mr. McDaniel suggested that the letter sent by the First Vice-President should be endorsed by the Board.

In the discussion which followed it was disclosed that £1,000 was granted by the Government to be spent on works in connection with the new addition to the premises for storage purposes, etc., that the plans submitted by the Building Committee, endorsed by the Board and drafted by the Public Works Department represented the require-

ments of the Society, and that the amount required to carry out the plans was £1,600.

Mr. Wint moved the following resolution:—

That the buildings used by the Jamaica Agricultural Society being Government property, the Government be respectfully asked to carry out the alterations and improvements necessary to meet the requirements of the Society—or failing this to allow the Society to carry out the work of remodelling and improving under its own arrangements.

This was seconded by Mr. Burke.

After further discussion the resolution was carried, Mr. McKay voting against it.

(c) *Mr. Phillips' resolution re date of Committee meetings.*—Mr. Phillips moved the following:—

"That no Committee Meeting in connection with the Board of Management of the Jamaica Agricultural Society be summoned for the day previous to the holding of the monthly or half-yearly meeting, unless the subject matter be of grave importance and needs urgent attention and that the words "Urgent and Important" be stated on the envelope.

This was seconded by Major Moxsy, and carried, Mr. McKay voting against the motion.

(d) *Remarks by Mr. McKay with reference to Bombay Mango Plot at Llandewey.*—Mr. McKay gave a favourable report on the Bombay Mango Plot at Llandewey which he had visited.

He was thanked and requested to allow that the report be published in the Journal. He acquiesced.

Appointment of Additional Supervisor.—

Mr. Cover said as arising from the minutes that at the July meeting of the Board a resolution was passed which accepted the principle of of having two Supervisors of Instructors, and also accepted the principle of promoting Instructors. He observed that at the last meeting the same matter came up and was deferred until the consideration of the Estimates for next year. Was it the principle of having two Supervisors or the principle of promoting the Instructors that had been deferred.

The Chairman said it was a matter of finance. There were no funds available.

The Secretary as directed, read the portion of the minutes of the July meeting with reference to the matter.

Mr. Cover then asked that the matter be recommitted and the appointment made, as the matter of finance did not arise.

Mr. McKay said he did not see how the Chairman could allow the matter to be reopened as it was purely a financial one.

Mr. Burke seconded Mr. Cover's motion which was carried, Messrs. McKay and McDaniel and Major Moxsy voting against it.

Mr. Cover then moved that Mr. Hanson be promoted as Supervisor of Instructors for the Eastern Division of the Island from the 1st of October next, and that Instructor Henderson's district be extended so that he could overtake certain work in Mr. Hanson's present district, and also that Mr. Byles' district be also extended if found necessary and the remaining travelling allowance for the supervision of the Eastern Section be allocated to the three men, taking up the additional work, and that the Secretary construct the details of the rearrangement.

This was seconded by Mr. Burke.

Mr. Reid, submitted that in view of the resolution it would be necessary to terminate the temporary arrangement that was made with Mr. Bacquie, for the supervision of the eastern area.

Mr. McKay said that if the motion was carried it would create unrest among the Instructors. It was providing for the promotion of Junior Instructors. He thought one or two members of the Board should be asked to confer with the Secretary and submit a workable scheme, as the suggestion before the Board would be the means of opening an avenue of discontent with would do the Society no good.

Mr. Seymour said that as he understood the matter it was a temporary arrangement to overtake the work in Mr. Hanson's present district, and would in no way affect the promotion of Senior Instructors. The measure was only to save the Society expenditure which the removal of Senior Instructors from further districts would entail. The Instructors suggested to fill the gap were Instructors from the adjoining districts He took it this was only by way of experiment with a view of taking steps to recast the whole matter when the Estimates were considered. He did not think it was of such importance as to rouse any feeling of discontent in the minds of Senior Instructors.

Mr. Cover said he should like it to be clearly set out that these new arrangements be purely acting appointments.

Mr. Wint said he would support the motion if it included the statement that the arrangement was temporary.

The motion was put to the vote and carried, Mr. McKay voting against it.

The Secretary was directed to notify Supervisor Bacquie of the new arrangements and carry out the terms of the resolution.

Statement of Accounts.—

(a) *Statement for July.*—The Secretary said the statement for July appeared iu the minutes.

(b) *Statement for August.* was submitted as follows:—

STATEMENT OF ACCOUNTS FOR AUGUST, 1935.

Recipts.		Estimates.	Total.
		£ s. d.	£ s. d.
To Subscriptions		175 0 0	118 8 6
Affiliation and Journal Fees		175 0 0	165 2 0
Advertisements in Journal		350 0 0	27 2 0
Miscellaneous		10 0 0	10 13 11
Bee Industry Sales		30 0 0	14 14 3
Sales Dept. Profits (1935-36)		400 0 0	..
Government Grant		9,500 0 0	3,958 6 8
Grant for Beekeeping Industry		500 0 0	143 16 11
Appropriation from Sales Dept. Surplus		657 5 0	
		£11,797 5 0	4,438 4 3
Balance from 31st March, 1935	..		781 7 7
Agricultural Show Deposits	..	..	45 15 0
Citrus Competition Shilling Fund	..	.	22 1 6
Jubilee Memorial Appeal Fund	..	..	14 6 3
Seeds Trading Account	..	..	1,770 2 7
			7,071 17 2
Less Expenditure as per contra	..	..	6,714 5 2
	Balance ..	..	£357 12 0
Cash on hand	..	46 4 6	
Cash in Barclays Bank	..	46 9 7	
Cash at Royal Bank of Canada	..	264 17 11	£357 12 0

Expenditure.	Estimates. £	s.	d.	Total. £	s.	d.
By Personal Emoluments:—						
Secretary and Office Staff	*2,117*	*5*	*0*	869	8	4
Instructors and Supervisor	7,671	0	0	3,223	6	6
Instructors' Course at Hope	125	0	0	71	19	2
Instructors' Tools and Contingencies	75	0	0	53	3	3
Secretary's Office and Special Travelling	100	0	0	63	8	5
Printing and Stationery	100	0	0	56	8	11
Printing and Issuing Journals and Reports	800	0	0	132	19	0
Rent and Rates	58	0	0	23	12	10
Rent of Telephones	27	0	0	11	0	0
Postage and Telegrams	10	0	0	4	12	4
Office Equipment Repairs	15	0	0	0	10	9
Incidentals	50	0	0	29	3	2
Auditor's Fees	25	0	0	25	0	0
Library Books	10	0	0	3	8	10
Show Equipment Repairs	10	0	0	5	6	1
Experiments: Bombay Mango Industry, etc.	100	0	0	26	0	5
New Office Equipment	40	0	0	5	1	0
	£11,333	5	0	£4,604	9	0
Beekeeping Industry	500	0	0	225	2	3
	£11,833	5	0	£4,829	11	3
Agricultural Shows Printing	..			22	0	0
Plant Disease Control	.			1	4	8
Citrus Budwood	..			10	9	11
Local Competitions	..			3	16	6
Travelling Advances: Instructors	..			322	10	0
New Show Equipment	..			38	7	0
Jubilee Memorial Fund	..			20	1	9
Seeds Trading Account	..			1,466	4	1
				6,714	5	2

(Sgd.) GLAISTER BAXTER,
Secretary.

(Sgd.) DONALD McDONALD,
Accountant.

Resolutions.—

(a) *Mr. McKay re Coffee Industry.*—The following resolution from Mr. McKay was submitted:

"That whereas coffee is a very valuable industry among the settlers of this Colony, and whereas there has been a falling off of quantity and price realised to the extent of seven million pounds in weight and £50,000 in value respectively, (vide speech Hon. Colonial Secretary on Budget for 1935-36) and whereas, the importance of the Industry in preserving the economic stability of the Colony is generally recognised; be it resolved by the Board of Management of the J.A.S. that a Committee consisting of the Vice-Presidents of the Jamaica Agricultural Society, Major Moxsy, Mr. D. Theo. Wint, a member of the Jamaica Imperial Association: and a member of the Chamber of Commerce, to be chosen by these bodies be appointed to make enquiries and report upon the industry along the following lines:

"(1) The method of growing, reaping, curing, and marketing coffee in Jamaica.

"(2) The quality of coffee grown in Kenya and their method of curing and marketing

"(3) The chief markets of the world in which Kenya and Jamaica coffee is sold.

"(4) The reason for the preference of Kenya coffee over Jamaica coffee.

"(5) To make any other investigations and suggest such remedies and relief as may tend to preserve the coffee industry for Jamaica and Mr. U. Theo. McKay to be Chairman."

The suggestion that an officer of the Department of Science and Agriculture be included on the personnel of the Committee was agreed to.

The resolution was seconded by Mr. Wint and unanimously carried.

Re Statement of Accounts.—

Mr. Burke asked if it was not possible to get citrus budwood from

the Government free of costs, and the Secretary replied in the affirmative.

Mr. McDaniel said in his opinion the budwood that the Government had being from young trees not yet in bearing should not be made available for distribution.

Communications.—

(a) *Letter from C.S.O. re Exhibition in South Australia.*—The following letter was submitted:—

22nd August, 1935.

Nos. 5108/35.

"I have the honour to transmit to you the accompanying copy of a letter from the Governor of South Australia, and to state that the Government would be glad to receive your remarks and recommendations in regard to the proposal that Jamaica should participate in the Exhibition of Empire products to be held in South Australia next year.

2. I should be glad to learn whether your Society would be prepared to confer with the Jamaica Chamber of Commerce and Merchants' Exchange, the Jamaica Imperial Association and the Tourist Trade Development Board, and to contribute jointly a representative collection of exhibits.

(Sgd.) A. R. DIGNUM.
for Acting Colonial Secretary.

The matter was referred to the Show Committee, and the Secretary was directed to reply that the Board was willing to co-operate, but that they had no funds for the purchase of exhibits.

(b) *Letter from C.S.O. re production of Bees Wax in Empire.*—The following letter was read:—

22nd August, 1935.

Nos. 4019/35.

"I have the honour to transmit herewith fifty copies of a letter from the Imperial Institute together with an extract from the article on "The Production of Bees Wax in the Empire" referred to therein, and to ask that they may be distributed to the Instructors of your Society with the request that they will use their best endeavours to encourage the production of a better quality of Bees Wax.

(Sgd.) A. R. DIGNUM.
for Acting Colonial Secretary.

The Secretary was directed to carry out the request from the C.S.O.

(c) *Memo. from Canadian Trade Commissioner re Fertilizers Act of Canada.*—The Secretary read Memo. from the Trade Commissioner covering copy of the revised regulations under the Fertilizers Act of Canada effective since July 1st, 1935, and laid the copy of the Regulations on the table.

He was instructed to thank the Canadian Trade Commissioner for his courtesy.

(d) *Letter from Chief Inspector of Produce re letter from C. C. Henriques of London re Annatto.*—Letter dated August 2nd was submitted from the Chief Inspector of Produce covering copy of letter from Mr. C. C. Henriques and his reply thereto and suggesting that the letters be published in the Journal and requesting that if desirable the attention of the Instructors be drawn to the matter.

The Secretary was directed to thank Mr. Murray for the communication and to give the matter publicity.

The meeting then adjourned for luncheon.

On the resumption there were present: Mr. McKay in the chair, the Acting Director of Agriculture, Messrs. Barton, Burke, McDaniel Wint, the Supervisor of Instructors and the Secretary.

(e) *Memo from Secretary and letters from Mr. Harper Watson re prize of Essex Boar to Branch Societies.*

It was decided to take the item lower down on the Agenda—*Resolution from Bellas Gate Branch re prize offered by Mr. Watson*—in conjunction with this item.

The Secretary in his memo stated that he had obtained permission from Mr. Watson to alter the date of the judging of membership to a later one than that first suggested as there had not been time for enough publicity to be given to his offer, which was as follows:—

"With a view to substantially increasing the membership of the Jamaica Agricultural Society I beg to offer a pure bred Essex boar pig to the Branch which by the 31st of August, 1935 will have in its membership the largest number oabove 60.

This animal to remain the property of the Branch until August 31st, 1936, after which it will be awarded to the Branch recording the largest percentage of increase.

No Branch with a membership of less than 60 will be eligible to compete.

This offer applies to adult paid up members only."

The resolution from the Bellas Gate Branch was read as follows:—

"That whereas the aim of Mr. W. Harper Watson in making his generous offer of an Essex boar is to have an increase of membership of the Branches, and whereas the condition on which the said board will be competed for during 1936 does not fully encourage the aim:—

Be it Resolved that the Board of Management respectfully point out to the said gentleman the inadvisability of having the increase of membership during 1936 calculated on a percentage basis, and recommend that it be considered on a numerical increase instead."

NOTE:—A Branch of 60 on getting 40 more members will have an increase of 66%, whilst a Branch of 160 on getting 80 more members will have an increase of only 50%, hence the anomaly.

It was decided that the Secretary should confer with Mr. Watson and decide on the terms that would most successfully carry out the object aimed at by Mr. Watson.

(f) *Invitation from Darliston Teachers' Association for Secretary to speak at Conference.*—Letter was submitted inviting the Secretary to attend an Educational Conference at Darliston and requesting that he speak on the Attitude of the Agricultural Society towards Agricultural Education in Elementary Schools.

The Secretary was authorised to attend if convenient.

(g) *Request from Somerset Branch that Down Tree (Silk Cotton) be added to the Praedial Larceny Law.*—The Branch requested that the Down Tree be added to the Praedial Larceny Law as it was an asset in that area, being used for cushions and pillows and sold at the rate of 1/6d. per pillow case full.

After discussion Mr. McDaniel moved that the Down Tree (Silk Cotton) be added as requested.

This was seconded by Mr. Wint.

Mr. McKay moved as an amendment that more information be obtained before this was done.

The amendment was not seconded.

The original motion was put to the vote and carried.

Messrs. Reid and Phillips came in during the discussion.

(h) *Memo from Secretary re terms of Employment of officers of the Society.*—The Secretary read the following:—

15th August, 1935.

To the Board of Management:

I am to invite your attention to the minutes regarding the resolution passed by the Half-Yearly General Meeting affecting the terms of employment of officers of this Society and to ask that you consider whether it would not be advisable to refer the employment regulations or amendment to a Committee.

(Sgd.) GLAISTER BAXTER,
Secretary.

It was decided that the matter be referred to the Office Committee with Messrs. Burke and Phillips added to the Committee for making recommendations to the Board.

Mr. Cover and Major Moxsy came in.

Reports from Committees.—

(a) *Instructors.*—The following report was submitted.—

"4th September 1935

"To the Board of Management:

"Gentlemen,

"Your Instructors' Committee met this morning and recommend for your adoption.—

1. That wth regard to the breach between Mr. M. H. Segre and Instructor Kelly the Committee recommends that Mr. Segre be asked to formulate charge or charges against Mr. Kelly and send this to the Board, when the Board will advise what steps they will take in the matter.

2. With regard to supplying locked boxes to Instructors for keeping poisons, the Committee recommends that the matter be referred to the Estimates Committee, and in the meantime the Instructors be warned to be very careful in their custody of poisions. Also that these locked boxes form a part of the Instructors' equipment, and that enquiries be made as to the cost of these boxes.

3. Letter from Instructor Thompson applying for increased emoluments was discussed and the Committee recommends that Mr. Thompson be advised that the matter is under consideration.

4. Letter from Instructor Byles was submitted stating that he had discovered a seedless lime tree in the Wakefield District of St. Catherine. The Committee recommends that the matter be advised to the Department of Agriculture.

5. The Committee recommends that Instructor Thompson be granted leave for the month of November, and that Instructor McLaren be granted one month's leave from 20th November.

6. Letter from Instructor Marr applying for promotion was submitted; the Committee recommends that he be replied to stating that we have no official notification that there will be a vacancy in the higher grades of Instructors.

7. Application for affiliation from the Williamsfield Settlers' Society was submitted and the Committee recommends its affiliation.

(Sgd.) GLAISTER BAXTER
Secretary.

On the motion of the Chairman seconded by Major Moxsy the report was adopted.

Bee Industry: and memo. from Secretary re short payment of subvention.—The Secretary read the following:—

26th August, 1935.

Gentlemen.

Your Bee Industry Committee met at the Office of the Jamaica Agricultural Society on Tuesday, 20th August, 1935, and recommend the following for your adoption.—

1. That they have considered the letter from the Public Bee Committee referred to them by you. protesting against the proposed removal of the Hylroy apiary, and recommend that the original decision to remove the apiary be adhered to.

2. Reports from the Government Veterinary Surgeon regarding the status of Foul Brood Disease of Bees to June 20th and to August 3rd were considered. We recommend that the following resolution be adopted by the Board and forwarded to the Government.

> "That due to the fact that the Foul Brood Disease of Bees continues to spread: and the industry is thereby seriously threatened, that the Government be asked to take similar action for its suppression as was done in 1926-27, and which then proved successful."

3. The Committee also considers that amendments to the Law so as to make it more drastic is necessary, and has decided that a Sub-Committee of the Bee Industry Committee, consisting of Mr. T. J. Cawley, Dr. S. Lockett (Govt. Vet. Surgeon), Hon. C. A. Reid, with Mr. D. T. Wint as Chairman, be appointed to draft a Bill for amendment of Law 9 of 1918, the same to be submitted to His Excellency the Governor for enactment.

4. The Secretary reported that the Bee Industry Subvention draft was received short of £22 16s. 5d., and submitted correspondence between the Director of Agriculture and himself. which disclosed that this amount had been expended prior to the Colonial Secretary's intimation to us that the vote would have to stand the expenditure necessary for the control of Foul Brood. The Committee recommends that as the letter from the

Colonial Secretary, dated 18th June, 1935, was the first advice received by the Board that all expenses in connection with the stamping out of Foul Brood should be borne by them, that the matter be taken up with the Government in view of the fact that the Board had created commitments which would fully use up the subvention to the end of the financial year, and that we should not be called upon to pay this expenditure which the Board had no cognizance of.

5. Memorandum from the Bee Instructor suggesting importation of Queens from Italy, and also that Queens could now be supplied locally from the Hylroy Apiary was considered. The Committee recommends that no importations be made, and that no Queens be distributed for the present from the Hylroy Apiary.

6. The Committee considered a request from the Instructors' Conference, asking that a special course in beekeeping be provided for the Instructor at the time of the next *Half-Yearly Meeting*. They *recommend that* the Board authorize this.

7. Letter from Mr. C. C. Henriques of London, regarding exhibit of Jamaica Honey at the British Industries Fair to be held in London in 1936, was considered. The Committee recommends that the letter be forwarded to the Colonial Secretary.

(Sgd.) GLAISTER BAXTER,
Secretary.

The Secretary stated that an emergency meeting had been held that morning specially to consider a letter which had been received from the Acting Director of Agriculture, and had prepared a report.

On the motion of Mr. Phillips seconded by the Chairman the standing orders were suspended to admit the consideration of the following report which the Secretary read as follows:—

"4th September, 1935.

"To the Board of Management:—

"Gentlemen,—Your Bee Industry Committee met this morning and beg to recommend the following:—

1. That with regard to the letter from the Acting Director of of Agriculture relative to the control of Foul Brood Disease of Bees, that a small Committee consisting of five members of the Board along with the Secretary be appointed to wait on the Governor and place the matter as it now stands fully before him.

2. Also that Mr. Coote be again recommended to the Government for appointment as a person authorized under the Law.

3. And that the other matters left on the Agenda be dealt with by the Board of Management.

(Sgd.) GLAISTER BAXTER,
Secretary.

Mr. Wint said at the last meeting of the Board it was decided to ask the Government to reappoint Mr. Coote as a person authorised under the Law in regard to bee disease, had any reply to this request been received?

The Secretary replied in the negative.

Mr. Wint submitted that it was necessary therefore to delete the second paragraph of the report which had just been read.

This was agreed to.

On the motion of Mr. Wint, seconded by Mr. Burke, both reports were then adopted.

Mr. Wint said that so far as he understood the situation, the Government had taken £22 for expenditure in connection with the Foul Brood disease between the months of April and June. He thought that a very highhanded action because it was by a letter from the C.S.O. received in June and therefore considered by the Board of Management at their July meeting that it was known that the payment for extra services in this connection would have to be met from the grant to the Bee Industry administered by this Board of Management. The Board in July had agreed to pay a sum which they requested the Department of Agriculture to see did not exceed £10 per month for this purpose. All such expenditure should be met out of General Revenue as laid down by the Law. It was apparent to him that the Board had pannicked when the request from the Government that they meet the expense was put before them, but it was the Central Government that was involved

and not the Board of Management of the Jamaica Agricultural Society which administered the grant to the Bee Industry. If the Governor made the mistake of not asking the Legislative Council for a special vote to cover the expenses in connection with the recent outbreak of Foul Brood Disease it was the fault of the Department of Agriculture who should advise the Governor in the matter. The Government has an obligation to the public and that obligation should be met.

Mr. Burke supported Mr. Wint's contention and added that in the same way that the Department of Agriculture was responsible for the control of Plant Diseases, Foot and Mouth Disease and so on, they were responsible for diseases of bees. He felt that if possible the Board should notify the Government that they could not continue to pay the expenses.

Mr. McDaniel and Major Moxsy supported what Messrs. Wint and Burke said.

Mr. Barton said that what Mr. Wint had just stated was a reiteration of what he had submitted from the very inception of the whole subject.

The Acting Director of Agriculture said that all things considered the outbreak of Foul Brood Disease was an extremely serious affair, and should be dealt with immediately. It was necessary to have men who knew about bee diseases to do the inspection. In the Department of Agriculture they had Dr. Lockett, but no one else who could be regarded as an expert. That was why he had written to the Society asking that the services of their officers who had the necessary experience be put at the disposal of the Department of Agriculture. It could be decided afterwards how their services would be paid for. He knew that the Governor had power under the Law to pay for inspection and compensation if necessary, by Special Warrant. At first when the disease broke out, Dr. Lockett and two men who were not employees of the Department went out and did inspections, but the Governor when approached said he did not see his way to issue a warrant for expenditure for the payment of these two men, and said that the amount should be met from the grant to the Bee Industry. He thought the Board should place before the Governor a statement showing that the whole grant was already allocated and there were no funds available. It was better to send concrete figures to the Government than to talk in the abstract. He considered it necessary that action should be taken speedily.

Mr. Cover pointed out that the position was that while they had a Bee Instructor thoroughly competent to deal with the Foul Brood Disease the Government would not give him the necessary authority to tackle the situation.

Mr. Phillips said it would be destructive to the Bee Industry if while they were quibbling over the matter, the disease was allowed to spread in the Island. He moved that a deputation consisting of Messrs. Burke, Barton, Reid and Phillips with Mr. Wint as Chairman be appointed to wait on the Governor to discuss the whole matter.

This was agreed to.

The Chairman then moved that Messrs. Bacquie and Hanson be appointed to give the help asked for by the Department of Agriculture in respect to the Foul Brood Disease of Bees.

This was seconded by Mr. Barton.

In the discussion which followed it was pointed out that if there was any extra travelling expenses involved in this connection it should be borne by the Department of Agriculture.

The motion was carried.

It was also decided that copy of the instructions issued to these two officers should be submitted to the Secretary.

Matters left over from the Agenda of the Bee Industry Committee were then dealt with as follows:—

The Bee Instructor's monthly report for July was submitted and the comments made thereon by members were read.

Letter from Major Pease, a former member of the Bee Industry Committee, who wrote from Tewkeshury, England, was submitted as follows:—

5th August, 1935.

"It may interest the Board of Management and especially the Bee Committee to know that while I was in one of the leading provision dealers in the West End of London the other day I saw a whole stall devoted entirely to Honey. The honey exhibited there came from the following parts of the world:—Canada, Malta, Syria, New Zealand, Turkey, Dalmatia, Denmark, Spain, Greece, Scotland, Berkshire, Sicily, Norfolk, Portugal, Hungary, France, U.S.A., "Empire."

You will observe that the only country I could not find was Jamaica and that presumably all Jamaica honey is to be found in the "Empire" variety. All these various honeys were most attractively put up in various coloured pots with coloured ribbons and scenes depicting the various countries from which they came. In addition to this several countries, e.g., Greece, had several varieties such as Orange blossom honey, *Hymetus, etc. etc.*

I tell you this just to show you what we have to compete against when we start importing goods into England."

The Secretary was directed to thank Major Pease for his letter.

Letter from the Beekeepers Committee of 20 Bray Street, Kingston, was submitted requesting that the Board co-opt either Mr. I. V Reid, an experienced beekeeper, or Mr. James H. Blackwood, a beekeeper, as a member of the Bee Industry Committee.

Major Moxsy suggested that the matter be referred to the Bee Industry Committee.

Mr. Burke moved that the request be granted and proposed that Mr. I. V. Reid be chosen.

This was seconded by Mr. McDaniel and carried.

(c) *Agricultural Produce Law.*—The following report was read:—

"27th August, 1935.

"To the Board of Management:

Gentlemen.

"Your Committee met and considered the Inspector General's letter containing suggestions for the amendments of the present Agricultural Produce Law.

"Your Committee is in substantial agreement with the suggestions of the Inspector General, but have instructed the Secretary to circularise the suggestions of the Inspector General and the amendments as revised by the Committee to every member of the Board as the matter requires most careful consideration, and we consider that to do this the members of the Board must be fully seized with the subject when it is being deliberated on at the meeting of the Board of Management."

(Sgd.) GLAISTER BAXTER,
Secretary.

Mr. Reid said there had always been a lot of talk about the control of praedial larceny, particularly in regard to bananas The increase of the license fee from £2 to £5 had, he thought, caused the reduction of the number of licenses, and the consequent employment of what was known as runners, and this system was the cause of much trouble in controlling praedial larceny. He was suggesting for the consideration of the Committee that the license fee be reduced to £2 as formerly.

The Chairman asked the Secretary to note what Mr. Reid said and suggested that Mr. Reid send a memo on the subject which could be placed before the Committee.

The Secretary stated that he had forwarded to each member of the

Board a copy of the Committee's report, a copy of the Inspector General's letter and a copy of the minutes which fully outlined the matter.

Mr. Burke said he was against the proposal that a second license should be taken out by owners of motor vehicles and carts which were used for the transport of produce as set out. He was thoroughly against any increased taxation at the present time when the economic condition of the country was such as it was.

It was pointed out that the Committ e had gone carefully into this same matter and had decided that the license fee originally proposed should be reduced to cover only the cost of such license to the Government.

Mr. Cover supported the view taken by Mr. Burke.

It was finally agreed that the whole matter be recommitted to the Committee.

(d) *Shows.*—The Secretary read the following report:—

29th August, 1935.

Gentlemen,

Your Show Committee met on Thursday, 29th August, 1935, and considered the resolutions referred to them from the Board as under:—

(a) *Expenses of Instructors attending Agricultural Shows.*—Whereas at present the Jamaica Agricultural Society charges the funds of Agricultural Shows with the travelling expenses incurred in sending the Agricultural Instructors to assist on the day of the Show: and whereas it is considered that Agricultural Shows are in the interest of agriculture in the Island and of assistance to the Jamaica Agricultural Society: Be it resolved that this regulation be amended to provide for the attendance of Instructors and Assistant Instructcr at Agricultural Shows without charge to the funds of the Show.

(b) *Advance to Agricultural Shows.*—Whereas local Committees undertaking the work of organizing Agricultural Shows of an "Island wide" or large scale, have to find funds to carry out the preparation for such Shows, and are further faced with the possibility of a loss on such Shows: Be it resolved that the Jamaica Agricultural Society approach the Government to act aside a sum of money for the purpose of advancing the assisting in the preliminary arrangements for Agricultural Shows of an "Island wide" status, it being understood that Show Committeees shall be responsible for the refund of the whole of the monies so advanced if the Show is unsuccessful, provided that the failure of the Shows is caused through no fault of the Committee organizing the Show.

We also reviewed the last report of the Show Committee which was presented to the Board at their August meeting and adopted.

Your Committee is of opinion that regular Show fixtures are desirable, even essential to the improvement of agriculture and stock rearing in the Island, and that there should be a certain number of primary Shows in permanent centres. Your Committee suggests that the number of these permanent centres should be six.

One for Kingston and St. Andrew and adjacent areas.

One for Portland and the East End of the Island.

One for the north-central portion of the Island—possibly Highgate.

One for the south-central portion of the Island—possibly May Pen.

One for the south-western portion of the Island, serving the parishes of Manchester, St. Elizabeth and Westmoreland.

One for the north-western portion of the Island—possibly Montego Bay.

Your Committee suggests that the Show fixtures should be triennial, which would allow two large Shows in the Island each year. We further recommend that one of these Shows should be held in the Spring and one in the Fall of the year.

That a non-recurrent item be placed on the Estimates for the coming financial year of £500 for the provision of permanent Show housing and equipment. Your Committee feels that such an amount would contribute largely to economies in operating Shows.

That a recurrent item of £200 per annum be placed on the Estimates for the purpose of subsidizing Shows if found necessary to make up operating deficits on any one of these Shows.

That a floating fund be created by inviting all existing Show Committees to contribute their available balances in hand. Your Committee feels that possibly £250 at least could be realized by such an action and that this fund be used to make advances to Show Committees for covering the preliminary finances of Shows.

Your Committee further recommends that there should be entrance fees on all entries for exhibition.

That the Government be asked to continue their Live Stock and instructoral exhibits at these primary Show fixtures.

That the Show Committee be appointed the Executive Central Committee for administering all funds in connection with these primary Shows, and all other matters in connection therewith.

That this Committee be empowered to co-opt members of the public at any time at their discretion.

The question of whether a certain percentage of the profit of these Shows should be awarded to the Branches or Associated Branches in the area was discussed. The Committee is against the entitlement of Branches of a percentage of the profit, but would consider in their discretion, making awards to Branches for specific and approved purposes.

(Sgd.) W. J. Thompson, Chairman.
Glaister Baxter,
Secretary.

On the motion of Mr. Cover, seconded by Mr. Wint, it was decided that the report be circulated to the Board.

Diseases of Plants and Animals: Insect Pests.—

(a) *Panama Disease of Bananas—Report for July.*—The Secretary placed on the table the report from the Department of Agriculture on the incidence of Panama Disease of bananas, and stated that copies had been issued to individual members of the Board.

Small Stock Subsidy.—

(a) *Application from Royal Flat Branch re Ram.*—The Secretary submitted application from the Royal Flat Branch for a grant of 15/- towards the purchase of a stud goat, and stated that the application was recommended by the Supervisor who had, with the Instructor, inspected the animal and approved of it.

The application was granted.

Industries.—

(a) *Report on Tomato Venture at Bellefield.*—The Secretary said he had in hand reports on this subject from Instructor Darby and the Agricultural Headman in his district.

The Chairman said the Agricultural Headman should report through the Instructor.

The Secretary was directed to circulate the information to the Board.

Resolutions from Branches.—

(a) *Beecher Town re Duty on Gunpowder.*—This resolution stated that the high duty on gunpowder made it expensive for farmers to shoot the Gold Finch bird which damaged their crops and asked that the said duty be reduced.

The resolution was not entertained.

(b) *Keynsham re visits of M.O.H. to District.*—This resolution asked that representations be made to have the M.O.H. visit the several sections of their districts at least once every four months.

The Secretary was directed to forward same to the Superintending Medical Officer.

New Members.—

On the motion of Mr. McDaniel seconded by Mr. Reid the following were elected members of the Society:—

E. J. B. Douglas, Jamaica Sugar Estates, Golden Grove.

Henry A. Edwards, Box 24, Cristobal, Canal Zone.

John R. Ernest, Juan Vinas, Costa Rica.

Harold G. Cassidy, 291 Southern Avenue, Cincinnati, Ohio, U.S.A.

Other Business.—

(a) *Secretary's Report on travelling for August* was submitted and noted.

(b) *Application from Miss J. Robertson for* 4 weeks leave as from 30th September was on the recommendation of the Secretary, granted.

(c) *Application from Catadupa Branch for subsidy for Saanen Ram.*—Application from Catadupa Branch for a grant of 30/- as subsidy towards the purchase of a stud goat recommended by the Instructor, was submitted and payment authorised.

(d) *Application from Princessfield Branch for Subsidy.*—A similar application from the Princessfield Branch supported by the Instructor involving a grant of 25/- was also authorised.

(e) *Letter from Maidstone Branch re change of name of Branch.*—It was noted that the "Maidstone" Branch would now be named the "Maidstone-Bourbon" Branch.

(f) *Letter from C.S.O. re distribution of seeds in St. Elizabeth.*—The Secretary read the following letter:—

Nos. 5160/35.

30th August, 1935.

"I have the honour to refer to your letter No. 131 of the 22nd August, 1935, and to inform you that the Governor desires that a distribution of seeds should be made to certain portions of Southern Manchester and southern St. Elizabeth with a view to alleviating distress in those areas.

2. The amount to be expended should be limited to £50 in the first instance.

(Sgd.) A. R. Dignum,
for Colonial Secretary.

The Secretary stated that the matter was in the hands of Mr. Bacquie, the Supervisor of Instructors.

(g) *Letter from Director of Agriculture re Pimento Disease.*—The following letter was submitted:—

3rd September, 1935.

No. C.E. 8.

"I am instructed by the Acting Director of Agriculture to acknowledge the receipt of your letter No. 307 dated 28th August, 1935, transmitting an extract from the minutes of the last meeting of the Board of Management of your Society, having reference to certain remarks made by the Hon. C. A. Reid in connection with a resolution from the Manchester Branches Associated, requesting the Government to appoint a Commission to enquire into the situation caused by the prevailing pimento disease. Mr. Reid refers to an individual who is alleged to have made suggestions to this Department in regard to the treatment of the disease, but whose suggestions had been ignored. I am to ask if you would be so good as to supply details in regard to this allegation, including the name of the person referred to, as so far it has been impossible to find in this Office any records supporting the allegation."

(Sgd.) George Goode,
Chief Clerk.

The Secretary was directed to send a copy of the letter to the Hon. C. A. Reid and ask him to supply the necessary information.

(h) *Application from Kilmarnock Branch for subsidy for a boar.*—The Secretary submitted application from the Kilmarnock Branch for a grant of 30/- towards the purchase and stated that the application was recommended by the Instructor.

The subsidy was granted.

Mr. Cover asked that the Secretary make a report on the Clerk of the Seeds Department with a view to seeing if the Board could increase his pay at the next meeting of the Board.

The Secretary asked that Mr. Cover discuss the matter with him.

The meeting then adjourned to Wednesday, 2nd October, at 11.30 a.m.

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EDITORIAL COMMENTS,

As can be readily understood, the Editor of this Journal reads the agricultural pronouncements of His Excellency the Governor with great interest and care. Actually these speeches are more studied than read.

Published in last month's Journal is the important speech of His Excellency which was delivered at the July Half-Yearly Meeting of this Society. Some stress was made on the fact that £2,500 is spent on its headquarters staff. This is of course, quite true. But the interpretation that it constitutes overhead expenses does leave an impression which might be misleading. The Society spends approximately £1,200 per annum on what is termed our official account, that is, the services connected with administration, editorial work, the printing and issue of the Journal, and the Field Instructors' services, and in addition to that, runs a Seeds Trading Department with an annual turnover of approximately £4,500.

Now these headquarters expenses which are looked at as overhead expenses are not by any means entirely overhead expenses. The real overhead expenses of the Society would amount to the salary of the Supervisor who does the supervision of the Field Staff and covers the Island in doing dso. In addition to this only a part of the Accountant's salary should really be charged to administrative work as more than half his time is taken up in the accounting work of the Seeds Trading Department. In the case of the Secretary and Editor, who is incidentally the Treasurer of the Society, he performs the work of Clerk to the Board of Management and is their executive officer, and in addition to that, his position as Editor of the Journal accounts for more work than possibly is popularly believed, such work to a great extent being done in overtime, and in addition to this he is really Manager and responsible for the proper running of the Seeds Department, and if his salary was carefully apportioned, very little would be charged to overhead expenses in connection with the Instructoral work. The Secretary also gives addresses and lectures to various Branches, generally, after dark. There are some departments especially the teaching department, whose expenditure is all overhead, and although supervisory work is done, the real supervision costs but little. I think this feature would apply both to the Jamaica Agricultural Society and a department such as the Education Department.

We are very jealous of the efficiency of our Society and are well aware that much is possible in increasing this efficiency, but our financial resources act as a definite handicap to many necessary activities which we could embark on for the benefit of agriculture. We think that the agriculturists could subscribe more to the support of the Society and this aspect of the case is due to be considered, as our independence of thought and speech can hardly be preserved, except we become more of a self-supporting organization than we are at present.

For some reasons which we do not propose to discuss, it has been considered wise that the Society carries out the work of agricultural instruction and teaching really on behalf of the Government. This is possibly the only country where these services are carried out by a voluntary body and not by a Government Department. The members of the Society should place the Society at least in the position that should in the future it be considered wise that the Government carries

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through the instructoral services, that their Society would still be in a position to function and so represent the agricultural opinion of the entire community of large and small farmers, and be able to continue their influence on the agricultural policies of the country.

ACKNOWLEDGEMENT.

We acknowledge with thanks a circular on "Investigations on the Storage of Fruits and Vegetables at the Low Temperature Research Station, Imperial College of Tropical Agriculture, Trinidad, B.W.I., by C.W. Wardlaw," received from the "West Indian Fruit and Vegetable Council (Eastern Group) Agricultural Advisory Department, The Imperial College of Tropical Agriculture, St. Augustine, Trinidad."

In view of our interest in developing a Vegetable export trade, these researches are of very great value to the West Indies.

Anyone interested in the information may see the circular at the office of the Jamaica Agricultural Society.

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Jamaican agriculturists will remember the Hon. H. W. Jack, M.B.E., B.A., D.Sc., who visited Jamaica some time ago and who is now Director of Agriculture for Fiji. Fiji is the Colony from which our present Director of Agriculture came.

Mr. Jack has made a report on the Banana Industry in Jamaica, which was laid on the table of the Legislative Council of Fiji on the 10th of May, 1935. Being of much interest to us, we reproduce with his permission, portions of this report that are likely to interest our readers.

Editor.

THE BANANA INDUSTRY IN JAMAICA.

By Hon. H. W. JACK, M.B.E., B.A., D.Sc., Director of Agriculture, Fiji.

Introduction.

The seedless variety of the bananas was introduced in Jamaica in 1821 and has now become the staple product of the country on which the prosperity and very life of most of its inhabitants depend, a good year being measured by the remuneration derived from the crop. In 1867, the Governor of Jamaica stated that though the country was admirably suited to fruit production, the total value of all fruit exports was only £728, whereas, at the present time, the exports of bananas alone amount to £2,000,000 approximately. In the same year he instituted in the driest districts a system of irrigation, which in later years proved of great value when planters at last realised that bananas were a profitable crop. In 1868 Captain Busch is reported to have shipped 300 bunches of bananas from Port Antonio in the north-west of the Island to New York, and in 1869 he formed a Company called Moodie, Sutherland and Busch for the banana trade and collected seven shiploads of stems. In 1873 Captain Bak r, on his way from South America, called at Jamaica seeking cargo and rather than go empty he purchased a cargo of bananas which he delivered successfully in Boston and his return in successive years for more and more bananas afforded ample evidence of the success of the venture. The first shipment by steamer took place from Port Antonio in 1884, when it began to be realised that time was an important factor towards the success in shipping bananas. The enterprise of Captain Baker was, however, the chief factor in the astonishing increase in exports in the fruit trade. Together with Andrew Preston he established the Boston Fruit Company to supply suitable steamers for the carriage of bananas, with the result that the demand for fruit in the States increased phenomenally leading to the formation of the United Fruit Company in 1899. The growth of the demand for bananas in the United States of America and elsewhere necessitated continued extensive development and the United Fruit Company in 1912 purchased banana properties and lands available for banana planting in Jamaica, Colombia, Panama, Costa Rica and other parts of Central America, the policy of the Company being to grow a large proportion of its fruit in order to ensure adequate supplies at reasonable costs and to maintain a standard of quality. This Company in 1912 owned no less than 820,000 acres of land and held leases of some 32,000 acres in addition, and the great thoroughness with which the Company tackled the problems of the industry is exemplified by the work of its Medical Department, which achieved so much to maintain the health of all its employees. Possessed of alternative sources of supply as well as a marketing organisation, this Company were all-powerful.

The success of the United Company naturally attracted competitors of which special mention may be made of the Di Georgio Importing and Steamship Company, which was formed in 1901, and in its infancy confined its operations to the purchase of bananas in the open market in Jamaica, where they loaded one steamer per week carrying about 12,000 stems. This Company flourished abundantly, becoming a very large grower, and in 1912 imported into the United States of America more than seven million stems, and in 1913 acquired additional foreign interests and was formed into the Atlantic Fruit Company.

The Imperial Direct Line formed by Sir Alfred Jones in 1901, was subsidised by the English and Jamaican Governments, with the idea of transporting bananas from Jamaica to the English Market. Their steamers were fitted with special refrigerating machinery and met with some success, and soon joined issue with a firm of old-established fruit importers in England, Messrs. Elders & Fyffes. The Company suffered a set-back, however, when supplies were reduced by hurricanes in Jamaica and had to seek assistance from the United Fruit Company to-day, Elders & Fyffes represent the interests of the United Fruit Company in Great Britain and Europe and market their bananas from Jamaica and Central America.

For years the American combine held a monopoly in Jamaica. They taught Jamaicans the importance of the banana, but growers began to feel that they ought to receive more than 1s. 9d. per bunch for a commodity that was then being sold for £25 per ton (12s. 6d. per bunch). Only those who had contracts for the sale of their fruit with the Company were certain of selling it, and they also stood a chance of having their fruit rejected by a rigid selector if fruit could be bought cheaper in the open market.

In 1919 when the Jamaica Fruit & Shipping Company offered 4s. per bunch for bananas in the open market, planters began to think seriously.

In 1925 a group of growers began to ship their bananas on a profit-sharing basis and the foundations were beginning to be laid for co-operative marketing. Propaganda was started on a large scale in 1927 and the friendly attitude exhibited by Sir Edward Stubbs, then Governor of the Island, was favourable to the scheme. In 1928 a project was under way. Help in the way of guaranteeing of their liability was afforded by the Government of Jamaica, the British Empire Marketing Board also gave financial assistance, contracts were signed in every part of the Island and the Jamaica Banana Producers' Association began to be born. Agreements with an American Corporation owning plantations in Central America were entered into, so as to ensure an alternative source of supply in times of hurricane and drought for the maintenance of their markets and for the transportation of their fruit tothe United States. Thanks to the preference given to Jamaican bananas by the Canadian Government under their Trade Treaty with the Jamaican Government in 1925, Jamaican bananas could be sold at a profit in Canada and the Canadian National Steamships commenced a weekly service of boats from the Island with refrigerated space for bananas. The Jamaica Direct Fruit Line Ltd. was brought into existence by the Association to transport bananas to Great Britain, and in 1919 the Association were sending their bananas to all the markets of the world simultaneously. The Jamaica Banana Producers' Association has since then increased its membership from 6,000 to over 16,000, has built three ships—the last of which has recently been launched—has established its own Jamaica Producers' Marketing

Company, with offices in London to sell its bananas and the Jamaica Banana Coy. Inc., of New York. In a word the Association has proved to the world that large landowner and peasant, rich and poor, labourer and capitalist, can work together to their mutual adavantage. The Co-operative Association controls over one-third of the bananas under what is known as the "Pool" system, by which the proceeds of sales over the year are taken together, and after the cost of handling, transportation, &c., have been deducted, the surplus is divided among the members according to the number of bunches each has delivered. *The middleman's profit is thus taken away and the grower reaps the* full reward for his labour.

PRODUCTION.

It is estimated that banana production now covers annually an area of over 100,000 acres and that irrigated areas, which only form a small fraction of the total, are capable of producing anything between 200 and 300 stems per acre per annum while, on non-irrigated plantations, production ranges from 100—150 stems annually. Like all fruit crops, the production in Jamaica is highly influenced by the nature of the season and in particular by the incidence of severe winds and of drought. The exports, which in 1910 amounted to 14 millions stems increased phenomenally to 24.5 million stems by 1930. The exports during the last ten years are shown as follows —

Year.		*No. of Stems.*	*Value.*
1924	..	11,971,087	£1,225,345
1925	..	15,017,422	1,510,625
1926	..	18,301,410	2,072,155
1927	..	21,151,881	2,365,464
1928	..	17,080,897	1,773,695
1929	..	22,047,536	2,509,878
1930	..	24,596,565	2,309,741
1931	..	22,335,605	1,983,395
1932	..	20,360,613	1,869,111
1933	..	10,557,369	1,018,476
1934	..	14,400,000	(estimated).

It may be mentioned that the exports in 1932 represented 59 per cent. of the total exports of the Colony.

The year 1933 was one of abnormal weather conditions. A violent storm in November, 1932, was followed by an unusually dry period which was prolonged until the following May, the rainfall from January to May being 41 per cent. less than the average rainfall of the past 60 years. The latter half of the year was excessively wet, the rainfall being 108 per cent. above the average.. Two weather disturbances occurred in August which wrought havoc with the banana and, combined with the heavy rains, caused serious damage to roads and properties, and some loss of life in addition. These exceptional weather conditions focussed the attention of agriculturists on three important matters; (1) the susceptibility of the Gros Michel banana to damage by winds of moderate intensity; (2) the desirability of exploring underground sources of water for irrigation purposes and (3) the serious effects of soil erosion during periods of heavy rainfall on denuded areas. Apart from the direct damage by wind and floods to bananas, the increased incidence of Panama Disease in banana cultivations on lands subject to

flooding was apparent during the year and interest in the production and testing of immune varieties of bananas, as well as in types which would stand wind damage better than the Gros Michel, was evidenced to a greater extent.

The development of the use of underground water for irrigation purposes received an impetus during the dry months of 1933, resulting in a considerable increase in the number of wells from which water is drawn, especially in the plains of St. Andrew and St. Catherine. Well irrigation is by no means new, however, as it is stated that there are over 250 wells in the Vere and Clarendon districts alone. Most of the wells have a capacity of some 80 cubic yards of water per hour while the largest well installed during 1933 has a capacity of 1,200 cubic yards per hour.

Extensive hilly lands opened by small settlers, suffered severe denudation resulting from heavy rains, uncontrolled fires, &c., and considerable interest is recently being displayed by the agricultural population in the reafforestation and the checking of erosion on steep hillside cultivations.

It may be mentioned that almost half the territory in Jamaica is situated at elevations over 1,000 feet above sea-level and that most of the hilly land is decidedly steep.

The unusual weather conditions of 1933 exercised their most marked effect on the banana crop which had already suffered severely by the storm in November, 1932, in that the re-establishment of plantations was hindered by the dry weather in the early part of the year and again suffered damage from storms in August, 1933, so that the crop in 1933 approximated only half that of 1932.

Physical Features.

The Island of Jamaica is situated 18° north of the Equator and 77½° west of Greenwich and comprises some 4,450 square miles of territory over which excellent transport facilities are afforded by some 4,000 miles of well-graded and well-maintained roads. Roughly rectangular in shape, the chief topographical features are (1) the interior mountain masses constituting the nucleus of the Island and culminating in the Blue Mountains which rise to 7,388 feet; (2) an elevated limestone plateau which more or less surrounds the interior mountains, ends abruptly near the sea-coast and occupies approximately 80 per cent. of the total area of the country, rising to 3,000 feet. The plateau is much dissected and eroded into "cock pits," basin valleys, swallow-holes and deep valleys of different sizes; (3) the coastal cliffs forming the margins of the plateau and sometimes showing terraces; and (4) the low flat coastal plains consisting mainly of elevated reefs, ancient sea-beaches and marginal plains representing old levels of erosion. The geological history which explains these features may be summarised as follows:—(*a*) two periods of mountain folding; (*b*) two great epochs of subsidence and contraction of land areas during which the limestones were deposited; and (*c*) later uniform elevation which added the alluvial plains. The rainfall of Jamaica is variable both throughout the year and at different localities throughout the Island, but it mostly falls as heavy mid-day showers so that the number of sunless days is small. In general there is a positive correlation between altitude and rainfall, the mean precipitation at Kingston situated on the alluvium in the south of the Island being about 33 inches per annum. Over about half the country the rainfall varies from 40—70 inches per annum and the

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more hilly districts covering the other half of the Colony usually get over 80 inches per annum and often amounting to over 200 inches in the mountains. Air temperatures in Jamaica (lowlands) show a mean annual daily range of from 76° F. to 82° F. approximately, the means decreasing by 1.6° F. for every 500 feet of altitude. Temperatures below 68° F. or above 91° F. are seldom recorded in Kingston.

The mean humidity of the air is 77 per cent. of saturation. Destructive hurricanes have occurred, on the average, once in 12 years during the past 200 years, usually between July and September, and generally cause great damage to shallow rooted crops, like bananas.

Soils.

The agricultural soils of the Colony may be classified as calcareous and non-calcareous and each of these groups may be divided into dry region and wet region soils occurring both in flat and in hilly lands. Bananas are seen growing at all altitudes between sea-level and 3,500 feet. Most of the large estates (which are decreasing in number) are located in the flat alluvial areas near the sea coast but much the larger percentage of the fruit for export is grown on hilly lands by small holders.

It may be mentioned that much of the hilly banana land is exceedingly steep (steeper than any areas as yet seen in Fiji by the writer) and surface erosion of the soil is extremely severe, little attempt as yet being made to stem the rapid denudation of the hillsides.

The soils are deep, even on the hill slopes and very fertile and few areas are unsuited to the production of bananas. On the average the productive banana soils are highly alkaline in reaction the mean pH being 7.7 and of deep and open texture. The content of organic matter in the top six inches of soil averages 1.6 per cent. and in the next six inches 1.2 per cent., while the carbon-nitrogen ratio is relatively low, especially in hilly soils. The soils as a whole appear to be very rich in mineral nutrients, the available potash being high in both flat and hilly areas and in alluvial areas the available phosphate is also high, though sometimes in hilly soils it is relatively low. Acidic soils, with a pH of less than 6, especially where the rainfall is heavy, appear to encourage Panama Disease, as this is prevalent in such areas.

The following table which approximately summarises the chemical composition of average banana soils in Jamaica may prove a useful guide to the selection of suitable soils in Fiji for banana cultivation:—

Top 6 inches of soil.

	pH.	O.M.%	C/N ratio.	Pot. Nutrient	Available P2O5.	Available K2O.
Alluvial ..	7.8	1.2	6.0	149	412 ppm.	145 ppm.
Hilly ..	7.5	2.0	4.3	154	25 "	137 "
heavy mi...	Second 6 inches of soil.					
In general t...	7.9	0.9	5.0	120	267 "	84 "
the mean pre...	7.5	1.5	4.7	148	24 "	110 "

south of the Is...
half the country th...

Planting Practice.

The preparation of land for banana planting involves clearing of all woody stumps down to a depth of two feet and then if the soil has been exposed for a long period or has been cropped for several years a thorough tillage is advisable. In virgin soils where there is a fair rainfall, little cultivation is required, but attention should be given to ensure good drainage.

As regards planting distances there are several objects which must be considered in deciding on the density of planting. Firstly, the quality of the fruit is all important and in this connection a high percentage of "count" bunches with fingers of full length and weight must be borne in mind; secondly, the rapidity of production which covers the period from planting to ripe fruit; thirdly, the optimum exposure of the land, avoiding excessive exposnre or excessive shading. All these questions crystallise themselves into the one big point of getting the maximum number of count bunches per acre that the land is capable of producing, without at the same time affecting the quality of the fruit or the count bunch percentage of the crop. Preliminary to these qnestions it is necessary to decide on the maximum number of suckers which it is anticipated can be permitted to one root without reducing the quality and sizes of stem or without lengthening the maturing period of the fruit. It is said that maximum production per acre can only be secured if a truly annually recurrent crop is prodnced from the individuals of the plant population; that is, plants should be so treated with reference to the conditions of environment, that the crop will annually mature in the same month each year. Some soils cannot carry more than a single sucker to the root and at the same time produce a recurrent crop each year; some soils can carry two suckers per root while a very few soils can maintain three suckers per root. Rapidity of production is a very important factor in annual crops and this factor depends on the crop environment, including soil, moisture, temperature, altitude, drainage [as improving atmospheric circulation in the soil and sunlight as affecting the working time of the leaves.

The sunlight varies naturally with the position of the land so that in a deep valley flanked by hills the daily hours of sunshine would be *materially reduced, thus contributing to a retardation of the* rate of growth. Available sunlight would, of course, also vary with the distance of planting the suckers and a larger number of plants per acre, planted in groups of two would exclude less sunlight than the smaller number of suckers planted singly and equidistant. The grouping of plants is naturally dependent on the combined quality of the soil, temperature, and moisture supply and it is in the happly medium of all these factors that the science of choosing the correct planting distances lies.

In Jamaica, experience has shown that for single sucker planting the distance of 10 x 10 feet provides the maximum number of plants that an acre can carry and produce fruit of good quality and size. This distance of planting provides 435 plants per acre and is only advisable where plant size is expected to be relatively small. If tree size is expected to be average and the soil is not considered to be capable of producing rapidly (truly annually) then 11 x 11 feet square, offering 360 plants per acre is preferable. The distance of 12 x 12 single plant planting (302 plants per acre) would only be advisable where large tree size is anticipated, but where the planting of two suckers per "mat" would not be considered advisable for reasons of short sunlight, soil temperatuie, &c. Where conditions

are known and especially on large estates where irrigation is practised and where the plants are not too large, 12 x 12 feet square planting with two suckers per mat is becoming popular. This method of planting offers 604 plants per acre, but is liable to produce bunches of low "count" percentage, as small tree size is invariably a corollary of small fruit. Under better conditions 13 x 13 feet and 14 x 14 feet with two suckers per mat giving 512 and 444 plants per acre respectively would be reasonable and advisable. In planting two suckers per mat the best method is to dig two 18-inch cubical holes spaced about 18 inches distant from the one lining peg.

LINING AND HOLING.

The distance of planting having been decided, lining is carried out in the ordinary manner. Holing should aim at providing sufficient room for a good healthy sucker with enough space to enable some surface to be placed around the sucker when it is being covered. A cubical hole of 18 inches has been found sufficient under most conditions in Jamaica except where heavy clays are encountered, when the practice is to postpone digging holes until the plants are actually being planted.

SUCKERS FOR PLANTING.

The ideal sucker is regarded as one which is about to produce fruit. At this stage the sucker makes an effort to reproduce itself by one or more of the many dormant eyes starting growth and plant food reserves are at a maximum. Such suckers prove reliable if they are derived from vigorous stands and used soon after the parent plant has fruited. The suckers are attached to their progenitors by a curved underground and this should be carefully dug round and cleanly cut so as to avoid any unnecessary laceration of the selected sucker as any excessive laceration is liable to develop a rotting of the torn tissues which may spread into and frequently kills the newly-planted sucker. Selected and cut suckers should also be carefully handled in transport to the area to be planted—a precaution which is often sadly neglected with detrimental results. In planting the suckers in the prepared holes it is customary to plant them erect, one in each hole, firmly bedded, and to cover in with surface soil which affords growing medium than subsoil.

IRRIGATION AND DRAINAGE.

After planting, the ordinary sequence of operations differs in irrigated and non-irrigated lands. Most of the large estates which are situated on flattish alluvial lands have now established irrigation as an insurance of sufficient soil moisture throughout all the life of the plant, for a constant supply of percolating moisture is very important on such lands if fruit of good quality is to be harvested. Naturally, the layout of any system of irrigation must depend on the lie of the land and it will generally be found that despite flat appearances, many shallow depressions and slight undulations are present and in order to afford a solution of the best arrangement of canals and distributaries these must be carefully located. For banana cultivation in Jamaica it is reckoned that 80–100 inches of rainfall, uniformally distributed throughout the year, constitute an adequate water supply for the crop, with due allowance for waste. On alluvial plains, loams and clay loams with a water table about four feet below the soil surface have given the most satisfactory response to irrigation, but far the larger percentage of the Jamaica crops is derived from small holdings to which no irrigation is normally applied. On large estates in the flatter lands irrigation is

effected either by gravitation from some convenient source of supply or by the use of deep well turbine pumps which have lately been given much prominence, especially in the Liguanea Plains where there appears to be an inexhaustible supply of sweet underground water.

Pumps for lifting water vary much in capacity. The small types which lift about 80 cubic yards per hour cost approximately £200 to establish and house and are driven economically by electric power which is available at 1½d. per unit. or by internal combustion engines driven by producer gas or diesel oil plants. The largest pump installed in 1933 had a capacity of 1,200 cubic yards per hour. The wells are now usually drilled and encased in steel tubes varying from 8 to 20 inches in diameter according to the volume of water to be raised. In the irrigation of bananas, uniformity of supply is the ideal at which to aim and it is usual to endeavour to run on a net quantity of 8 acre inches of water each month, so that an adequate supply of moisture is available to the plant at all periods of its growth. Where possible this is done at the rate of four inches each fortnight but single monthly applications are more usual. It has been found that irrigation at the rate of two cubic yards per acre per hour is sufficient to constitute an adequate ration for the production of full crops of good quality fruit on the average alluvial soil, and allowing for a loss of 30 per cent. in waste, evaporation, seepage, &c. Assuming that one inch of rain is equivalent to 100 tons of water per acre, then one inch of rain is approximately equal to 133 cubic yards of water. Two cubic yards per acre per hour = 17,520 cubic yards per annum = 132 acre inches approx.). (Well made trenches or flumes constructed of impermeable materials would, of course, reduce the estimated losses of water considerably).

On a 10-acre block, in order to apply 5 acre inches of irrigation where the supply is rated at 100 cubic yards per hour the following calculation explains itself:— 1 acre inch = 133 cubic yards x 10 x 5 = 6,650 cubic yards = 66.5 hours of flow.

Rainfall is also usually taken into consideration in applying irrigation but most of the irrigated land in Jamaica lies in the dry zone where annual precipitation ranges from 20–40 inches per annum only.

Naturally, the type of soil will have an important bearing on the amount of irrigation required, but in general it may be stated that the best volume of water to apply is the maximum that any particular soil will hold.

Before any pump is installed it is necessary to estimate the amount that can be spared from the proceeds of the crop, for the purpose of water supply. In Jamaica it is stated that £3 per cubic yard per hour per annum is the limit of expense which high producing banana lands (300 bunches) can afford, this constitutes £6 per acre per annum for water supply—while for 200 bunch land £4 per acre is regarded as the limit.

Bananas are intolerant of standing water, so that good drainage must be afforded to ensure success, even on the hillsides in Jamaica where heavy impermeable soils, rich in lime, are of frequent occurrence.

Inefficient drainage, even if it only reduces a good bunch by one hand may result in a heavy depreciation in the value of the bunch, since in Jamaica each hand short of the standard 9–hand bunch is penalised to the extent of 25 per cent. of the standard bunch value.

The objects of drainage for bananas may be briefly summarised as follows:—

(1) Lowering and maintaining the water table below the rooting depth of the banana, so as to give full scope for the roots.
(2) Preventing the creation of an artificial water table in clayey soils.
(3) Aeration of the soil, particularly heavy soils.
(4) Interception of surface and subsoil water.
(5) Removal of flood water, mainly from heavy soils.
(6) Anti-erosion measures on sloping lands.
(7) Retention of rain water supply.

Well-planned and dug drains are a great asset to a plantation and are expensive to construct, and consideration of costs alone should stimulate an appreciation of the value of maintaining them in effective condition. It may be mentioned that in Jamaica the same types of pump as are used in irrigating alluvial banana land are sometimes employed for drainage purposes on large estates.

Inter-tillage.

After planting, the maintenance of the surface soil in an open friable condition is of great importance, especially in the earlier stages of growth of the plants. The soil immediately surrounding the newly-planted suckers should be deeply stirred and pulverised in a circle of some 3–4 feet radius and then levelled with the surrounding surface. No "hills" should be created as these adversely affect the crop by encouraging too much suckering and by attracting the roots too closely to the surface. When the plants are about five months old, it is usual to fork over the entire area of the plantation but no deep cultivation should be given after this stage when embryonic bunches begin formation.

If land has been well ploughed or prepared in other ways before planting, the maintenance of the soil in good condition does not occasion much trouble and circle weeding around the suckers, as already mentioned, coupled with light harrowing or light tillage by other implements should be sufficient, after the deep forking when the plants are five months old. On suitable areas in Jamaica animal-drawn implements of cultivation include 8-inch ploughs and tillers drawn by one animal, Imperial ploughs and disc harrows drawn by two animals, and Oliver ploughs usually drawn by four oxen. On hillsides, deep forking at five months after planting followed by a periodic slashing of all weed growth is all that is done as a rule.

The benefits to be derived from thorough preparation of soils before planting, coupled with the maintenance of surface tilth afterwards are too well known to need mention, but the number of ploughings and of rounds of cultivation by other methods must always be governed by the economics of the crop.

Pruning.

th
yea. Bananas like all fruit crops require pruning for the maintenance of
ance the general welfare of the plants, to ensure good quality fruit on large
table abnches, to time the ripening of the crop and to provide for future
factory rengs. With regard to the timing of the crop, consideration must
Jamaica crop to the growing season of the plants and the natural periods
is normally ajar in which the best fruits are produced, the best marketing
d the existence of adverse periods such as stormy seasons.

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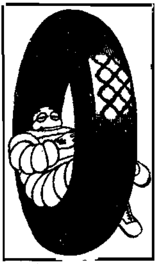

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Some of these factors may be opposed to each other and the grower must choose the most favourable combination for the conditions as they exist on his plantation. In Jamaica it is fortunate that the best fruiting season coincides with the best marketing season and that both precede the hurricane season, so that all these factors combine for the good of the crop; hence plantings in March-May give harvest in July-August of the next year so that the young plants escape hurricane damage in October-November and they have finished fruiting before the gales set in, in the following year.

Normally 3—4 weeks after planting, the heart shoot of the sucker is ringed and turned down provided that healthy young "peepers" are apparent a few inches above ground. Three or four weeks later all the "peepers," except the most robust one are pruned off cleanly. After this first "singling" a continuous war is waged against succeeding "peepers," pruning rounds being made every 4-6 weeks according to the rapidity of growth so that they are not allowed to grow more than 8 inches, otherwise they tend to use up much valuable plant food. Furthermore, the bigger the suckers become the more expensive will be the pruning and the more difficult the work. About five months after planting, the crop plant starts to "sucker" itself and one of these robust suckers known as the "hurricane sucker" is maintained in case of accident to the leader by winds, &c. After the hurricane season is passed it is usual to permit two more suckers to remain on the plant for use as the first ratoon crop. If planting suckers are required early the "hurricane sucker" is pruned off about 2½ feet from the ground and kept in this condition until its parent plant has fruited, when it can be removed as a plant.

To sum up, no clustering or heavy growth of suckers is permitted in order that the plant may have every chance to produce the best possible bunch, since inferior bunches are very heavily handicapped in the market. After about 80 per cent. of the plant crop has fruited, it is customary to plough or cultivate the land deeply by other means as a preparation for the first ratoon crop. In this operation heavy tillage and root cutting do no material damage, since most of the roots cut are those of reaped mother plants, while the suckers for the suceeding crop have not yet extended their roots to any appreciable distance. The next step is the selection of the sucker for the production of the first ratoon crop. In this connection a good ratoon sucker should have a large, sound and ample rhizome, free from deformity or injury and tapering to a small circumference just below the tuft of leaves which should be narrow and spearlike. The better of the two suckers retained from the plant crop is selected for this purpose as it is generally found that one plant to the root produces the heaviest fruit and the highest count ratio though on first class or virgin land it is sometimes possible to produce a greater number of count bunches per acre by leaving two succkers to the root, but should this be done, the two suckers should be on opposite sides of the parent root, so that the two ratoon plants may be spaced as far apart as possible.

The "hurricane sucker" already referred to, is usually removed before, the final selection of ratoon sucker or suckers but the death of the mother plant should not be hastened, since its roots supply the new suckers with nutriment for at least four or five months. Pruning of the first ratoon crop is carried out as with the plant crop, but it must be borne in mind that each succeeding ratoon is usually slower in coming to maturity than its predecessor or than the plant crop. It may be mentioned that on some large estates it is customary to prune off the

terminal bud about one month before harvesting. This practice is said to increase the weight of the bunch by 1 to 4lb. It must be remembered that judicious pruning is a very important operation in regulating the timing of maturity and the quality of the fruit as well as the general welfare of the crop and is only entrusted to reliable and experienced workers.

Pests and Diseases.

Apart from the ravages of Panama Disease which has caused the abandonment of many hundreds of acres, banana planters in Jamaica are fortunate in having few pests. Though Panama Disease (*Fusarium cubense*) still continues to devastate areas in all parishes, it is hopeful to mention that the percentage increases in the number of diseased plants have diminished in the past two years. Control of the spread of this disease is difficult since the cultivation is very largely in the hands of small holders, but Agricultural Inspectors have had considerable success in persuading the growers to destroy affected plants and to isolate areas on which affected plants have been found. The use of certain grades of fuel oil has been found effective in killing diseased plants in situ without necessitating digging out and burning the plant material and this method of treatment has greatly reduced the cost of dealing with affected plants.

The Research Staff of the Department of Agriculture have made a good start on work aiming at the production of varieties and types resistant to Panama Disease and this appears to be the only sound method of tackling this virulent disease which vitiates the soil for several years. Where new lands are plentiful, their use of course greatly assists in promoting crops, which otherwise could not be grown successfully, but in Jamaica the amount of new land available is now very limited in extent.

Of insect pests only one is regarded as being of serious proportions and that is the Weevil Borer (*Cosmopolites sordidus*, Germ.). This pest is found in most banana-producing countries and is generally spread by transporting planting material from infected areas for supplying new areas, which indicates that attention given to the selection of borer-free suckers would largely counteract the virulence of this pest. In addition, ordinary plant sanitation helps considerably to prevent an accumulation of breeding places, while trapping and the use of Paris Green powder go a long way towards control of the pest. In Fiji this pest is already effectively controlled by the Jepson beetle (*Plaesius javanus*) which was introduced into the Colony in 1913 from Java and is now found in all banana-growing areas.

Other pests of little consequence include the Scale (*Chrysomphalus personatus*), the aphid (*Pentalonia nigronervosa*), nematodes (eel worms) and leaf spot (*Cercospora* sp.).

Seedling Varieties.

Generally speaking, the results of breeding work with bananas is encouraging and suggests that seedlings raised from crosses of the Gros Michel with other species immune to Panama Disease will approach more nearly to the desired type. That the discrepancy between the seedlings and the Gros Michel parent is slight is evidenced by the fact that bunches of S17 and S19 have been included in batches of Gros Michel bunches for shipment and have been purchased unknowingly by shipping concerns.

(*Extract from the West India Committee Circular, August 1, 1935.*)

THE BANANA OR PLANTAIN WEEVIL.

This pest causes great damage in the West Indies and owing to the fact that it burrows within the bulky suckers used for planting material it is very difficult to guard against introducing it into new cultivations. Efforts have been made for many years to find a practical means whereby suckers could be ensured to be free from harbouring the pest.

Investigations reported on recently in the Puerto Rico Journal of Agriculture, indicate that lengthy immersion in water, and fumigation are not reliable, but that all stages of the weevil are killed if the suckers are sterilized for eight hours at a temperature of 43°C. or approximately 109° F. in a saturated atmosphere which is kept in circulation. No injury is done to the suckers themselves.

It is hoped that this may prove a practical method of combating this troublesome pest.

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Ed. Note:—We are prompted to publish the article below due to the fact that a market in Canada exists for the Red Spanish variety of Pines and that requests for shipments this season were made which could not be met. This article by Mr. A. P. Hanson, was published in the Journal of the Agricultural Society for May, 1931, and he has very obligingly gone over it and brought it up to date.

Editor.

PINEAPPLES.

By A. P. Hanson, Agricultural Instructor for Western St. Andrew.

Up to the present Jamaica is much behind in the development of the Pineapple Industry which in some other islands is an important commercial fruit. Arranged commercially in order of merit West Indian fruits are: bananas, citrus, and pineapples. With increased shipping facilities, and an ever-increasing consumption abroad, and the attention being given to the plant principally in St. Andrew, much interest has recently been aroused.

The Point of View:—

Would-be cultivators of the pineapple are advised to disabuse their minds of the idea that pineapples can be grown practically without water, that the growing of pinguin is an indication that pineapples also will grow; and of other extravagant ideas regarding income from an acre; etc.

While the plant will withstand considerable drought, still like other cultivated plants, it requires a fair amount of moisture. Though pineapples are sold locally for very handsome prices, when it comes to mass production the prices must drop to less than half the present average; at which lower prices, however, very handsome profits can be made, given a dependable market.

Climate, Soil and Preparation:—

The pineapple is not exact as regards climate, consequently it is found flourishing from a few feet above sea level up to about 2,500 feet.

With careful cultivation the pineapple can be produced on soil too poor for other crops. It is, however, partial to a light soil, or soil made loose enough to admit air to the roots. Stiff or lumpy soil must be thoroughly broken up, and drained. The trenches should be 1½ to 2 feet deep, and wide as deep. They may be laid out at 22 feet apart. Especially on the Liguanea Plain I have seen many plots of pineapples killed out by over-watering. A local Competition three years ago corrected this mistake. The sloping lands of St. Andrew with their light soils mixed with humus, and with a natural drainage, are among the typical pineapple soils.

In this Instructoral District we produce over 100 cases monthly in mixed cultivation, and of different varieties.

The pineapple objects to shade from trees. The decayed matter in the axil of the leaf has a very harmful effect. There too, under such conditions the Pine Weevil Borers lodge themselves and propagate. The land for cultivation should therefore be cleared of trees.

Pineapples may be grown on the flat on ridges, or on beds. Opinions differ as regards laying out, fields being laid out in single rows, or from two to four rows. Less space is wasted where the plants are grown in the larger number of rows. There is less danger too, of the plants bending over with their fruits, which then mature with bent crowns.

Planting 2 feet by 2 feet to 2½ feet by 2½ feet is economical. Weeding is done by hand with the Dutch Hoe (push hoe).

Propagation and Cultivation:—

The pineapple grows from the crown which adorns the top of the fruit, from slips, located at the base of the fruit where it adjoins its stalk, from suckers, which grow between the leaves of the plant, and from ratoons produced by the root stock.

The crowns are sold with the fruits, and if planted grow very slowly, they are therefore not classed as real plants. The slips are small and should be grown as nursery plants till they attain a height of 12 to 18 inches. The suckers which should all be removed and planted make the best plants to start when of the size just mentioned.

Ratoons are well anchored in the ground and also make good plants. They should be reduced to a single plant per root.

The pineapple suckers begin to produce roots at a very early stage, but the leaves with their strong fibres prevent the roots protruding. Before planting therefore, strip the outer leaves off which confine the roots which should also be untwined and trimmed with a sharp knife. The woody end of the plant should also be cut smooth.

The inner leaves of the "sucker" should never be cut off. If they are long bind around them with a string, such as a bit of withe. If too many of the leaves are stripped off, the plant becomes water soaked, or gets scorched by the heat, and dies. Make a hole with an ordinary garden trowel deep enough to receive one fourth of the "sucker" then press the earth around with the handle of the trowel. It works quite well planting pineapples in groups of four rows 2 feet by 2 feet to 2½ feet by 2½ feet with intervals 4 feet wide between. At 2½ feet by 2½ feet an acre accommodates 5,000. At 2 feet by 2 feet 8,000.

In starting up pineapple growing the biggest outlay is on account of suckers. Small suckers produce small fruits the first bearing. The good suckers mature in from 12 to 18 months. The grove must be kept quite clean and the surface loose. Up to the present assisted by mulch, Jamaica soils produce excellent fruits.

Pineapples heavily manured produce large fruits, but they are watery, fibrous and lacking in the typical flavour of the fruit. Others produce abnormal growths. One of our exportable varieties weighing 4 to 5 lbs. is a very good production.

Local Varieties:—

Red Spanish:—Locally called Bull Head. I mention the Red Spanish variety of pineapples first, because in connection with the history of the pineapple industry of Jamaica it has always received a favourable report from abroad. The fruit is of medium size, and a good shipper. It is highly productive. More than 90% of the plants are always productive; and it is an all season variety. Of the best among other varieties only about 65 to 70% can be depended on to fruit. The Red Spanish keeps for weeks after it becomes freshly ripe.

Jamaica Sugar Pine:—Our most popular variety on the local market is the Jamaica Sugar Pine so often but wrongly called Sugar Loaf. It is also known as Cheese Pine, or China Pine, but these are not attractive names. It is not a good shipper. It however, combines size with sweetness.

Ripley:—The Ripley is considered a dainty. It is a good shipper. It is rare in most parts of the Island now, though formerly common.

Jamaica Black:—The Black Pine with its pale green leaves and green coloured fruit is a hardy sweet fruit, carries well, and should be encouraged.

Sugar Loaf:—The true Sugar Loaf Pine bears a close resemblance to the Jamaica Black, but is rounder and ripens with a yellowish green colour. It carries fairly well.

Sam Clark:—This is a beautiful pineapple, somewhat resembling the Red Spanish. The leaves and fruit are red. Unless however, the fruit is perfectly ripe, it is acid with a tendency to irritate the palate.

Marketing:—

For the local market the fruits should be allowed to ripen in the grove. For shipping they should be cut when "turned."

They should not be left about in the sun, neither should they be gathered wet.

Last season there was a call for pineapples of the Red Spanish variety for the Canadian market where there is a growing demand. Unfortunately the orders came when the crop had nearly all been reaped. With proper arrangements there should not be any hitch in the marketing of the 1936 crop.

Active planting should be started in September. One reason for this is that the suckers follow the fruiting. The reaping continues till July, and these suckers attain proper size in September.

In spite of demonstrations the large majority of the growers still follow the line of least resistance. At Salisbury Plain, for example, the centre of a large pine growing area, I established two years ago, a plot of pineapples planted at the proper distance, and in alignment. I understand I was until recently criticised for planting pines too closely; yet we scoured neighbouring holdings for fruits to ship only to find nine-tenths of them with crooked crowns instead of such as would adorn a banqueting table. Pines should be so planted as to support one the other, and develop in an upright position. Then the fruits ripen evenly also. When bent over the sun generally strikes directly on one spot, or one side which ripens prematurely, destroying the keeping quality of the fruit.

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That the efficiency of our Dairy Industry must be improved if it is in the future to expand and supply our local requirements in competition with imported butter and condensed milk is generally admitted. The potential value of our own market to the Jamaican dairymen is in excess of £200,000 and is certainly worth securing.

The various methods to be pursued towards improvement have been discussed and more or less emphasis has been placed on breeding, progeny tested bulls, feeding, organisation, etc. Little has been said of pasture improvement.

Pasture improvement is one method, towards the desired result, i.e., efficiency and low cost of production, that the individual farmer must hold himself responsible for. Whilst it is true that very little scientific research has been made as regards our pasture grasses in the Colony, yet we know quite enough of the qualities of our various grasses to guide us in a pasture improvement campaign. In advanced dairy countries considerable work, both from the scientific and farmers' standpoint, has been and is being done on this matter.

There are two avenues that the farmer may explore in an attempt to make his pasture yield more food value per acre. We of course omit the elementaries of keeping the pastures clean and suitably shaded.

One is to establish the best variety of grasses and the other is to nourish the soil. The objects to be attained from both are substantially the same, i.e., the greatest quantity of feed and the highest food value content per acre. In considering varieties of grasses, the varieties that naturally thrive under the particular soil and climatic conditions are of course those to be considered. We are in these notes confining our discussion to dairy needs.

The grasses that thrive naturally on the low lands are, the Guinea grass, Para grass, Wire grass, Seymour grass and Bermuda or Bahama grass. The two former are taller growing grasses and the three latter are usually found on commons. Guinea grass may be considered the aristocrat of the grasses in Jamaica. It thrives over a wide range of the country and grows at nearly all but the very highest altitudes, although it is at its best on the coastal plains and it does well on soils ranging from heavy clays to sandy loams. It also does well on rocky limestone country. It appears to us that its food value however would vary considerably (and we have no doubt that this statement would also apply to all the other grasses) with the soil, soil condition and altitude in which it grows. Under conditions not well suited to Guinea grass there is a tendency for the pastures not to stand up to hard feeding and such pastures are invariably invaded by other valueless grasses, such as the Sour Foxtail grasses and also certain types of bushes which are pests to the pasture heightening the cost of keeping pastures clean and lowering the production of fodder per acre. In such situations dairymen should not put all their eggs into the Guinea grass baskets. Guinea grass has also the weakness that in times of extended drought pastures are apt to go bare of feed entirely. Many of the other valuable grasses have however the same weakness.

The Para grass is mainly a lowland grass. This grass is also an excellent milk feed and is especially suited to swampy ground so long as the moisture is not too saline. Its natural habitat is warm humid locations and it will thrive and make excellent pasturage on ground much too wet for any of the other valuable grasses to thrive on —we have however seen Para grass thrive at fairly high altitudes but in

every case some favourable local condition, such as a land-locked moist valley, has permitted this. Wherever the conditions are suitable the dairyman should encourage this grass as it holds ground excellently, permits little invasion of other growths and will stand up to hard feeding, Its method of growth also favours the eating of the young shoots of the grass by the cattle as the protein value of the feed is enhanced thereby.

Wire grass is a well known grass that seems only adapted to the very arid, hot lowlands. It makes a fairly good feed under very adverse soil and climatic conditions but its food value is only high at its earlier periods of growth. It matures and seeds very rapidly and then might be regarded only as a valueless straw. This, of course, should be looked upon as a last resort when no better grass can be established.

The Seymour grass is another of our grasses thriving as commons in low, hot, arid country. It also thrives fairly well under conditions of moderate rainfall and might be regarded as a valuable grass for commons. The Seymour also has the bad habit of seeding early and thus experiencing a sudden drop in its food value, but it makes a much better feed in its younger stages than the wire grass does, and if it can be mowed by machines at the stage when its food value is highest and made into hay it would be a very valuable grass under most conditions. It might be of interest to know that the Seymour grass, which at one time was confined entirely to the upper plains of the Liguanea, is rapidly spreading throughout all the lowlands and midlands in Jamaica, possibly propagated through the droppings of cattle moved from one part of the Island to the other.

The Bermuda or Bahama grass is very excellent feed indeed and thrives well in the lowlands and midlands, and tolerant of climates

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ranging from hot and dry to moderately cool and medium rainfall. It forms excellent commons and can stand hard feeding and its feeding value is very high. The yield per acre is possibly its weakest point but it is nevertheless a valuable grass and should be encouraged wherever it is found to establish itself naturally.

Of the upland grasses, Wynne grass, Pimento grass and the Flat or Crab grass are more widely distributed. Guinea grass (already discussed) also grows to a greater or lesser extent in the uplands but might not be regarded as a suitable grass for high altitudes.

We would call special attention to the excellence of the Wynne grass as a grass suitable for providing good crops of fodder of high feeding quality at altitudes around and above 2,000 feet above sea level. It is a real good grass and completely covers the ground after once having been properly established and making a good fattening feed, and in its younger stages should be an excellent dairy feed, producing milk of good flavour and providing a feed of high palatability of which cattle is very fond. We have been informed, that several properties before the establishment of certain pastures in Wynne grass, found themselves entirely unable to fatten cattle, but now do so with ease, and livestock properties in the uplands should pay much more attention to the propagation of this valuable grass than is at present the case.

The well known Pimento grass of St. Ann makes an excellent fodder and it seems to thrive best on shallow weathered limestone soils and under moderately humid conditions. Where this grass naturally thrives it is very difficult to replace it with any better feed, and it should be introduced wherever it is absent with a view of finding out whether it is adapted to the conditions, to that it may be established where possible.

The Crab, or Flat, grass thrives under humid conditions but on the wetter, heavier clays and cannot be recommended for large scale operations. It does not offer as much or as good feed as either the Wynne or Pimento grasses, but is of use in locations where the other grasses do not thrive.

Establishment of the best grasses for the location is important. Some work in this direction has been done in Jamaica, but little or nothing has as yet been done as regards their care except periodic pasture cleanings.

Two important operations towards the care of pastures are rarely ever done, one, tillage, the other fertilising and manuring. Discussing the question of tillage, we think its greatest benefit is caused through the increase of the absorptive capacity of the soils resulting. Undoubtedly there are other advantages resulting from tillage but only too often is the production of the grass crop limited in its volume and succulence by the limitations of soil moistures. With reference to manuring, the only manuring that fodder grass ever gets in Jamaica is the excrement of depastured animals. In certain districts, particularly the cooler uplands the winter grasses are of very poor growth, and contains little nourishment. This is reflected by retarded growth in the young animals, poor milk yield among dairy cows and poor condition throughout herds. A well established pasture would well repay a small application per acre of some nitrogenous fertilizer, such as sulphate of ammonia, nitrate of soda or calcium cyanamid each of these appropriate to a certain soil type. It has been definitely established in other countries that the protein contents of grasses respond favourably to applications of such fertilizers. It often happens that we find highly acid pasture soils overlaying marls or closely adjacent to marl outcrop.

Applications of these marls in fair quantity on such lands can then be very economically made and with great advantage to the quality of the grass. It is well known that several types of useless and pernicious grasses thrive on highly acid soils to the disadvantage of the more valuable and useful varieties. Soil amendments such as suggested is likely to result in real improvement of pastures.

Methods of feeding pastures.

There is a science in the feeding of pastures due to the fact that the food value in the grasses does not remain a constant factor throughout its growth. There is also the factor of considerable waste by trampling by depastured cattle. It may roughly be taken as an axiom that the protein contents of grasses are higher in its younger stages than it is at or near seeding time when the carbohydrates (fattening foods) predominate. After seeding all food values rapidly deteriorate until the grass if not consumed has little more food value than straw. Pastures should be sub-divided into sufficiently small areas so that the milk yielding herd will feed off the cream of the grass (and the grass should be fairly young several weeks away from seeding) in two days. The stubble should then be fed off by the dry herd or the growing stock. Feeding by this method not only provides fodder of a higher protein content which is what is required for a good milk yield but will lessen the wastage of the best feed from trampling.

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DAIRY NOTES.

THE IMPORTANCE OF PROGENY TESTED SIRES.

(*Extract from Hoard's Dairyman, July* 25, 1935.)

For many years it was taught that the way to improve our cattle was to select a bull out of a good cow by a sire out of a good cow. It was assumed that with his production in his ancestry, he would transmit good production. We know now this is not always true. Some bulls bred in this way will trasmit good production and others will not. We must have bulls out of good dams and by sires out of good dams, but we must locate the bulls so bred that also have the ability to transmit their good inheritance. It is encouraging to know that many breeders are proving their bulls before using them extensively. Such breeders are making splendid progress.

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(*Extract from the Allahabad Farmer, July*, 1935.)

RURAL RECONSTRUCTION.

The rural population of India, (as of most countries of the world) is greatly in excess of the urban population, but far less attention has been paid to it by the government and other public authorities than to the urban. The reason for this is that the urban population is concentrated, usually vocal and organises itself to secure what it wants, whereas the rural population is scattered, and finds it exceedingly difficult to organise and co-operate. It therefore does not speak with the unanimous voice of city folk. This has been so from the dawn of history. But this does not mean that this condition is either wise or right. History shows from the break-up of the Greek and Roman Empires that the downfall of the Empire was due very largely to the revolt of these neglected rural folk. *One of the lessons of history seems to be that the government which would persist and prosper must develop and care for the interests of the rural folk.*

Of recent years some consideration has been given to the problems of country people. President Theodore Roosevelt in America brought the attention of the people in the United States to the rural folk and their needs. He appointed the Rural Life Commission whose investigations have proved of great value. Sir Horace Plunkett in Ireland and many other workers in Continental Europe worked successfully to better the life of village folk.

A study of rural conditions shows that seldom in any country in the world is one village able to support the services which it needs for a proper and normal civilised life. Various expedients have been tried to bring the scattered villages the amenities of civilisation:—The travelling library; the consolidated school where instead of having a small inefficient one-teacher school in each of several scattered villages; at some central village, a central school has been put in with the pupils graded into classes and a number of teachers. This consolidated school has proved itself one of the most satisfying and important means of improving education in rural communities. Better teaching has been provided, with more highly qualified teachers. The course of study for village children has been lengthened, and the curriculum broadened so as to include not only the literary subjects, but science and art and music. While much has been accomplished yet much remains to be done to adapt the curriculum to the needs of the consolidated village school. A few years ago a noted American educator, Dr. Kenyon Butterfield, who had been president of two important American State Agricultural Colleges was sent round the world to study the rural educational problem. At the conclusion of his study of conditions in India, he spoke of a "Rural Reconstruction unit" by which he meant from ten to fifteen continuous villages, having a sufficient population to support the various activities which the village folk need, yet sufficiently compact and near together for both the children and the adults to come to the centre. He said the services the village needed were for public health, maternity, preventive medicine, sanitation, agriculture and subsidiary and related occupations and industries, education, recreation and re-creation. This involves domestic science for the improvement of the village home, adult education for those who need it (in most parts of India an overwhelming majority of the population); education for the boys and the girls. This demands the adaptation of the curriculum and courses of study to meet the needs of village folk; the provision of medical service as well as public health

and sanitation. Under re-creation would come art, music, religion, anything which would strengthen the spiritual nature. Under recreation would come organised games of all sorts to suit all grades and ages of the population. This would develop a wise use of the leisure of village folk.

Fortunately, the Government of India and the provincial governments have set aside funds (totally inadequate) for rural development with special officers to develop the rural programme. This is one of the most encouraging incidents in modern India. The success of this rural reconstruction work of the government and all other public bodies and individuals who co-operate with the government will depend very largely on the training and spirit of those teachers and demonstrators who actually come in contact with village folk. As far as I know the various schools, colleges and institutions of India have not provided specific and definite courses and instructions for rural workers for the villages. Unless this training is provided a great deal of the money so generously given will fail to secure its fullest beneficial returns. Training for village workers needs more than a short course. A two years course with practice would suit, depending on the qualification of the pupil. Perhaps the most urgent need for the success of rural reconstruction is the provision of suitable training centres for workers. I would stress beyond all else the training of women, who should be able to go into the Indian village and improve the village home. Of all the tasks before India to-day this at once is the most difficult, the most complex, and the most necessary. Here is where the missions may be able to contribute to the well-being of India. Both the government and the people of India have for over a century welcomed mission co-operation in education and medical work. One feels sure there will be a continuation of this co-operation, if missions will set themselves out to give of their best to the improvement of the Indian home. The village home does determine and will determine the civilization of India. No civilization can rise higher than its homes. If the home is enlightened and progressive and the women folk educated, the civilisation will correspond but if the home is filled with darkened minds who live by their fears and supersititions, the civilization will follow. Hence the need for the fullest co-operation between government in its various departments, other public and private bodies, as well as all individuals of goodwill, to improve the village home which will in turn cause improvement in every other form of proper village enterprise.

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By Harry E. Heinkel, California, U.S.A.

(Continued.)

Principles of Breeding.

Breeding rabbits is, without a doubt, the most interesting and fascinating part of the work in raising this valuable little animal. Yet, at the same time, the practice of breeding is the most important task of the producer. The rapidity with which rabbits breed and produce their young exceeded only by the cavy, offers an excellent opportunity for the development of purebred high production stock, or, if fancy stock is the aim, the fancier has an unlimited range. However, the quality of the stock with which one starts is important.

Commercial or Market Stock.—If rabbits are kept for the purpose of supplying the market, then a breed should be selected that will produce the most meat in the shortest possible time. In California, where the rabbit industry is a well established business, the White New Zealand predominates. It is an excellent producer, and its fur has a ready market. The Flemish and Belgian, both standard and giants, are used as market stock. And, of course, there are those who favour the Chinchilla. But no matter which of these commercial breeds one selects they should be producers, and the breeder should make every effort to have his does produce eighty-five pounds of meat a year. The aim should be produce a rabbit that is almost as broad across the shoulders as it is across the hind quarters. It should not be too long and lean appearing, rather it should be broad and heavy. The buck, while usually smaller than the doe, should be as large as possible.

Fancy Stock.—While these articles pertain principally to commercial rabbit-raising, it is proper that some reference be made to the fancy breeds in our considerations of the principles and practices of breeding.

The breeding of fancy stock, unless one has time and money, and the winning of a cup or ribbon is of greater satisfaction than profit, has no place in the commercial rabbitry. However, if fancy stock be your aim, secure the finest specimens obtainable. And even then, disappointments are frequent, for the "purebred" Chinchilla may kindle a litter containing some Silver Martins, the marking of the Dutch may disqualify it from the show, the black fur of the Himalayan may be slightly off-color, and the best of selective breeding may bring with it undesired results. The standards of perfection as established by the various Rabbitbreeders Associations should be obtained and studied.

Purebred.—Any rabbit which breeds true to type and color is a purebred. And any rabbit which meets the breed standard is eligible for registry as a purebred. Yet what is most important—productivity—is not considered. The commercial breeder, however, maintains a record of performance, and uses this record as a guide in his breeding practice. It must be remembered that a registered rabbit is not necessarily a good breeder, and a pedigree is not a performance record. When the performance record and pedigree become a part of the bill of sale then the buyer is assured in getting high production stock if that was the object of his purchase. Never buy breeding stock from a breeder who will not guarantee his stock as to type, color and production. The breeder who is honest and knows his stock will not hesitate to do so.

Line Breeding.—The method of breeding practised by most breeders is line breeding which often extends to the point where it is known as *Inbreeding.* Breeders differ in opinion as to just where the line should be drawn between line breeding and inbreeding. A single line of descent from one family or families of a common ancestry is line breeding. This confines the characteristics in the offspring to known qualities, and is the most rapid procedure in developing and improving the breed. Since this method insures a rapid improvement the opposite is also true in that any undesirable characteristics will be multiplied. And therein lies the danger.

Whether or not a doe possesses the ability to transmit to her progeny her own high producing ability can only be determined by selecting two or more sisters from her litter and if all of these sisters are high producers they may be considered as good breeding stock. However, all responsibility should not be placed upon the doe. The buck is of great importance—a factor which has been neglected very much by breeders.

Breeding father to daughter, and son to mother, is accepted by many as the correct method of line breeding. Sister and brother should never be bred, except in certain cases when it is desired to produce special results. For example: A Rex crossed with a normal-haired rabbit will produce no Rexes, but by interbreeding the young about twenty-five per cent. of the following generation will be Rex. This kind of breeding requires a careful study of Mendel's laws of heredity. In fact, it is a profitable study for all breeders.

Crossbreeding.—Crossbreeding is the breeding of animals of different breeds. In crossbreeding anyone's guess is good as to what the progeny might be like. This practice belongs to the realm of the fancier or to those who enjoy surprises.

Outbreeding.—When unrelated stock is introduced to linebred stock outbreeding takes place. Extreme caution should be employed in introducing foreign stock of an unknown pedigree and performance. In line breeding an unrelated buck is usually brought in at about the fifth generation, depending largely upon the age of the herd buck of the line. Sometimes the herd, or line, buck has outlived his usefulness by the time the fourth generation is reached. It then becomes necessary to introduce the unrelated stock.

Mating Rabbits.—In the New Zealand, as well as in some other breeds, the rabbit should reach maturity at six months of age, and the doe should weigh eight pounds and be in good breeding condition. A doe is in good breeding condition when she is not fat, fur should be prime, and no evidence of disease should be present. The breeder should have his aim definitely in mind, and should mate only such stock which possesses the standard he has set for himself. If care is used I believe it to be a good policy to introduce unrelated stock from time to time in order to maintain vigor and fecundity. The producer of meat stock should watch meat texture, bone and frame construction, and even though most of his pelts will be sold as hatters it is well to give some attention to fur quality.

Fecundity.—Body weight is often considered a function of fecundity. This naturally indicates that the larger the rabbit the larger the litter. True, a Flemish Giant or a New Zealand will have a larger litter than a Himalayan or Polish, but within the breed there are exceptions to this opinion. I had a White New Zealand doe weighing 12½ pounds whose average littler for four successive kindlings was four young. Another doe weighing 11 pounds averaged 10 young for the past six

kindlings. In considering body-weight as a basis for estimating or arriving at the possible fecundity of the doe, the over-fat breeder should be eliminated. The extent to which body-weight affects fecundity might be more fully established by maintaining complete records of weights and the number of young in each litter.

Fertility.—Failure to breed is one of those things that vexes the producer. I believe that fertility is very much of an inherited characteristic. Yet we must not overlook other factors which are very often involved. Certain does are affected by high temperatures, food supplies, and a breakdown in vigor. However, if the stock is of a good quality fertility is very often a matter of management.

Summary.—The producer should make every attempt to increase his knowledge of the principles of breeding by studying the methods used by the various stock breeders. He should maintain careful records of his breeding results and discover all that he can to improve his methods and practice. A constant improvement should be his aim and the acme of perfection should be his goal.

The Practice of Breeding.

The breeding of rabbits in the warm climates demands close observation on the part of the producer. The rest period between litters must be somewhat prolonged in order to permit the doe to regain vigor lost during the lactation period. After the litter is weaned the doe should be examined, weighed, and proper measures resorted to in order to bring her into breeding condition as quickly as possible. Some breeders do not breed their stock during the very hot season and intensify the breeding in the cooler seasons. There is danger in this practice of giving the doe a long rest period as she may become too fat and fail to breed. Many a good doe has been lost in this way.

It is best, if conditions permit, to breed the doe four times a year. In the hot summer weather let her keep a litter of five or six, and in the cooler season she should maintain a litter of eight. It is a good practice to reduce the litter of a doe's first breeding to about six young in order to test her ability as a producer.

To breed take the doe to the buck's hutch. See that she is free of disease. If she is in heat she will accept the buck in a few minutes. Remain close at hand as the doe may resent the buck and injure him, or if it is a young buck he may be ruined for future use. Successful service is indicated by the buck falling over to one side or backward. If the doe refuses service remove her to her own hutch and try her again every other day until successful service is obtained.

The breeding cycle of the doe covers a period of about fifteen days and estrus lasts usually about three or four days. One service from the buck is sufficient although some producers give a second service the following day. A mature buck can be used three times a week.

When the doe stamps her hind feet and rubs her chin on the hutch equipment it is an indication of heat. When this occurs soon after breeding it is an indication that she failed to conceive. Breed her again. Building her nest a week or ten days after breeding is another indication that she failed to conceive.

Never use the buck or breed does when they are in a molt. Breed only when buck and doe are in perfect condition.

The gestation period is thirty to thirty-one days. Ten days before the young arrive place a nest box in one corner of the hutch. As does usually wish to make their own nest place sufficient nesting material in the hutch. During this peziod, especially, the doe should be distrubed

as little as possible. The day before the young arrive the doe will begin *to pull fur to line her nest. Some are more industrious in this respect* than others. The young are born naked and with their eyes closed. If the doe is disturbed or frightened during kindling she is apt to scatter her young all over the hutch, and should this happen during the night or when a frequent observance is impossible, the entire litter may be lost. In very warm weather it is well to see that the young are not covered with too much fur by the mother.

The day after the doe has kindled an inspection of the litter should be made. *And then the question is up to you how many she should* keep. Under no circumstances let her keep more than eight, as she has only eight nipples, and some Belgian Hares have only six. If she is of high production stock and proven ability let her keep eight. But in very hot weather, or if it be her first litter, reduce the number to six.

A very good practice is to breed two or more does at one time. Then, should one doe have a small litter, or lose hers at birth, she may wet nurse those from a large litter. The number in a litter may be up to sixteen, which is the largest in my experience.

In determining the number to a litter it is important to remember that rapid growth is necessary. A litter of six may be more profitable than a litter of eight. The governing factors are your stock, feed, and management.

If the young are intended for breeding stock reduce the litter to at least six, and let them remain with the mother until they are eight weeks of age. Then transfer them to the developing pen. Meat stock should be removed from their mother at six weeks of age.

The Nest Box.

Almost any ordinary box will serve as a nest box. However, for the larger utility breeds it should be ten inches high, twelve inches wide, and eighteen inches long. In all cases it should be high enough to prevent the young from coming out too soon. For nesting material use straw of most any kind.

As soon as the young come out of the nest box, remove the old, musty bedding and replace with clean straw. When the young are about four weeks old remove the box entirely. Clean the box thoroughly and place in the sun for a few days. It is a good plan to use the same box for one particular doe.

Covered nest boxes are not necessary in the warm climates and should not be used. Neither should a permanent nest box be built into the hutch as they are difficult to keep clean and sanitary.

(To be continued.)

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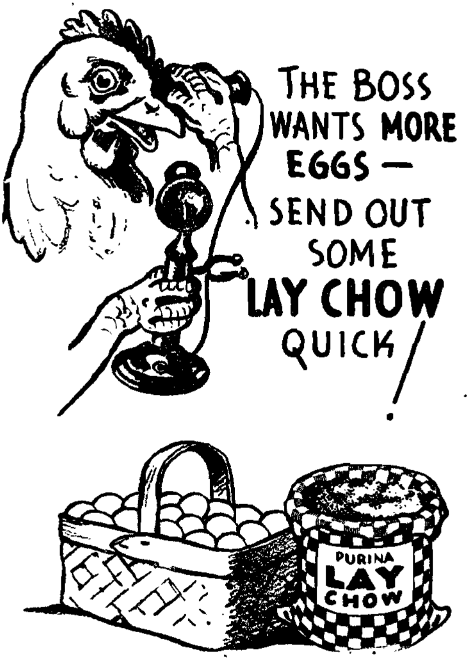

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NOTICE.

The Holly Hill Branch of the Jamaica Agricultural Society hereby gives notice that at the next General Meeting of the Agricultural Society, it will move through its duly qualified delegate that the Rules of the Jamaica Abricultural Society dealing with the Triennial Election of the Board of Management be amended to provided for parish representatives.

Ed. Note.—This notice of motion for the next Half-Yearly General meeting is published at the request of the Branch and as being likely to be of general interest.

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(*Extract from the Allahabad Farmer, July*, 1935.)

MILCH GOATS.

A word in regard to the value of goat's milk. The T. B. Bacillus has not yet been found in goat's milk. This fact is one of great importance, more so as this dread disease is on the increase in India. Further the digestibility of goat's milk is much greater than that of cow's milk or buffalo's milk. Its value for dyspeptics is shown by the fact that in New York, Chicago, and other large cities in the U.S.A. goat's milk retails for twice the price ot the best cow's milk, being in much demand for hospitals and sanatoriums.

Coming now to a comparison of goat's milk with cow's milk, certain interesting facts stand out at once. Indians do not, we believe, like goat's milk. Why? Perhaps, because of its odour and taste. This is entirely a matter of management. We have produced goat's milk absolutely without odour and when offered to friends to drink, could not be distinguished from cow's milk. The peculiar taste often associated with goat's milk, is probably due to the goats having been fed on Nim leaves, which are extremely bitter, and also to the presence of the male with the milking herd. In many ways goat's milk is certainly superior to cow's milk. An important diff r nc b tw en cow's milk and goat's milk is this. Goat's milk is alkaline, cow's milk acid in reaction; a difference which may mean life and death to any one with a very weak stomach. Further cow's milk requires two hours for digestion, goat's milk 30 minutes; a saving of ¾ of the work for the stomach; another life and death difference in many cases of weak digestive organs. If one studies, the mineral-salt contents of three milks, *i.e.*, cow, goat and human, it is interesting to note that there are twelve different mineral-salts found in the three kinds of milk, but not all of them in any one milk. All but three of the twelve are to be found in goat's milk, only six in cow's milk, and but five in human milk; a difference of no mean importance. Further cow's milk is almost without iron, whereas goat's milk has from 7 to 10 times as much of that v ry important element in the blood of all warm-blooded creatures. High medical authorities have said that "If cow's milk contained a little more iron it would be the 100 per cent. perfect food."* It is also well known that the phosphates are bone-forming elements; of 7 phosphate salts the milk of the cow carries 0.508 parts, the milk of the goat which is a much smaller animal, 0.319; and human milk the disportionately small total of 0.096. When we come to the salt containing potassium, we find the order reversed, and the small goat showing 0.483 parts to the cow 0.282; a truly remarkable thing, when we consult Webster and find him telling us that "Potassium has the most powerful affinity for Oxygen of any known substance, and takes it from every other compound." Add to this the iron content in goat's milk, and we have an oxygen-absorbing power in goat's milk uncomparable with any other milk.

Thus has Chemistry clearly shown us, why the "poor man's cow," is so strong and vigorous, and so readily adaptable to all climates, and why her milk is so super-superior as a food, and also a therapeutic agent, both of which are being continually demonstrated in many thousands of cases all over the world.

It is these factors that make goat's milk an ideal feed for infants and children. In India this is of the utmost importance.

FREE VETERINARY ASSISTANCE IN ST. ANN.

It is generally acknowledged throughout the Island that the reason for animals being in poor condition and badly handled is in most cases, mainly due to lack of knowledge as to their care and lack of veterinary facilities to deal with their ailments; allied to indifference as to the economy of proper animal husbandry.

There can be no doubt that the Agricultural Instructors can do and in many cases are doing, much to teach stock owners the need for better treatment and understanding of their animals. In the parish of St. Ann. by kind permission of the Board of Management of the J.A.S. and the Supervisor of Instructors Messrs. Atkinson and Robotham combine veterinary treatment with advice; their instruments, drugs, and dressings being supplied by the St. Ann Branch J.S.P.C.A. Their reports, sent to the Hon. Secretary each quarter, show the number of cases diagnosed and treated, with the results, and prove a saving of much animal suffering by skilled attention. Having proved this free veterinary service to be of great help to stock owners in the outlying districts, the Executive Committee of the St. Ann Branch J.S.P.C.A. have gone further in the matter and through the kindness of Dr. Stephen Lockett an ex-Farm School Student, Mr. L. T. McDonnough, has received special veterinary training. He is now on duty on Saturdays in the several markets of the parish where he examines any animal brought to him, advises on its condition and where necessary gives treatment, *free of charge*. He does not take any part in prosecutions under the cruelty to animals Law, as to enable him to do the best for the animals he must have the confidence of the owners and bad cases might go untreated if the owners feared prosecution.

To maintain this Free Veterinary Service there has to be considerable expenditure of funds in salary, travelling expenses, drugs, dressings and instruments. Many kind people, both in England and Jamaica, have helped with subscriptions and gifts in kind but more are needed and the Hon. Secretary, Mrs. Gilbert Cocks, Knapdale, Brown's Town, St. Ann, will be very glad to receive subscriptions (2/6 being the minimum for membership) or gifts of old linen, bandages, veterinary remedies or appliances.

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JAMAICA AGRICULTURAL SOCIETY.

(*Extract from Queensland Agricultural Journal, 1st August, 1935.*)

CITRUS BUDWOOD SELECTION.

The large proportion of trees of undesirable strains in many of our citrus orchards is largely due to the lack of care in the selection of budwood.

With regard to citrus trees, there is no general accepted theory to account for bud variation; it is of a more or less frequent occurrence in trees of all varieties. It may manifest itself in the habit of growth of the tree, or in the size, colour, texture, abundance or scarcity of the fruit. Sometimes a tree grown from a single bud will develop several distinct strains of fruit. Minor variations in fruit characteristics are of very frequent occurrence.

It must be patent to growers that too much care cannot be taken in the selection of budwood. Nursery propagation of bud variation may be largely avoided through the use of buds selected from trees whose records have shown them to be heavy, consistent producers of fruit of a desirable strain.

In this regard Queensland has enacted legislation prohibiting the sale of citrus trees excepting those which come up to certain desirable standards. Nurserymen now sell only the acknowledged best varieties of trees which have been grown from seed selected under the supervision of an officer of the Fruit Branch of the Department of Agriculture and Stock, and which have been worked with scions selected under the supervision of such officer from vigorous trees free from disease and bearing large, consistent crops of fruit characteristic in all respects of the variety.

In connection with this budwood selection, a plot of trees, worked from specially selected buds, has been planted for the purpose of future budwood supplies. To bridge over the period until supplies become available, buds are secured under Departmental supervision from Queensland's finest citrus trees, of known performance, producing fruits of a desirable strain characteristic of the variety.

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KINGSTON.

MARKETING NOTES.

Local Produce Prices.

Annatto—Well cured, prime, red seed	18/- delivered Kingston
Cocoa—Ordinary	18/- " "
Fair Fermented	18/- " "
Estates Fermented	19/- " "
Coffee—Good Ordinary	26/ " "
Fine Ordinary	28/ " "
Manchester-B	28/- " "
Manchester-A	30/- " "
Honey—Pale	1/9 per gln. delivered Kingston
Light	1/6 " " "
Dark	1/3 " " "
Kolanuts—Sound quality, well cured	6/- delivered Outport 7/- delivered Kingston
Orange Oil.—Sweet—sound quality	4/- per lb. delivered Kingston
Sarsaparilla—Well cured, red roots	38/ to 40/- delivered Kingston according to quantity.
Wax—Pure and clear	7d. per lb. delivered Kingston.

(Extract from Monthly Report on the Produce Markets published by Messrs. Gillespie Bros. & Co., Ltd., London.)

Pimento.—The tendency of the market has been rather primer during the past month, though the demand has been only moderate. We must raise our quotation to 28/-, 29/- c.i.f. for July/August and August/September shipment. There is more enquiry in Germany for parcels lying in store, and a fair business has been done at 27/6 p. cwt. ex warehouse.

Stock in London at 24 *Augt.* 1580 *Bags*: Against 1,189 bags. in 1934.

Ginger.—There has been a slight improvement in the demand towards the end of the month at steady prices for Jamaica, good boldish bringing 85/- p. cwt. Buyers may now be expected to shew more interest as it is evident that their stocks are running down.

London *Stock* of *Jamaica:* 8,440 pkgs. against 5,806 in 1934.

London *Stock* of *African:* 4,387 pkgs. against 7,005 in 1934.

Honey:—Since we last wrote, values of Jamaica have improved, fully 3/- to 4/- p. cwt. from the recent lowest point. The market is in a more healthy condition as a fairly large quantity of rather inferior quality has been absorbed and Importers' Stocks are now of very moderate proportions. Dark liquid is valued at 25/-, 26/-; Amber liquid 28/- to 30/-; pale 32/- to 34/- per cwt.

Cotton.—The market for W. I. Sea Island in Liverpool remains firm, and present indications point to a continuance of this tendency. We quote good to fine West India 16d. to 17½d. per lb.

ERRATA.

The word "overbeating" on page 492, line 14 of the August *Journal* should be "overheating."

(*Extract from Weekly Dairy Produce Notes*, 26.7.35.)

NEW ZEALAND BUTTER PRICES.

Editor's Note.—The price of New Zealand butter is rising.

PRICES.

The following statement gives prices of butter, as issued by the London Provision Exchange to-day, together with those of last week. Prices quoted are those of Thursday, and up to 11.30 a.m. Friday.

Butter.	This Week. Per cwt.		Last Week. Per cwt.	
New Zealand—Finest	92/-	93/-	89/-	90/-
First Grade	91/-	92/-	89/-	
Finest Unsalted	96/ to	98/-	94/-	

(*Extract from Weekly Dairy Produce Notes*, 19.7.35.)

PIG KILLINGS IN NEW ZEALAND.

Month.	Poker Pigs. 1934/5.	Poker Pigs. 1933/4.	Baconer Pigs. 1934/5.	Baconer Pigs. 1933/4.
	Carcs.	Carcs.	Carcs.	Carcs.
November	55,889	32,446	21,285	18,773
December	48,102	37,998	18,053	17,894
January	58,852	54,055	22,557	14,190
February	47,522	36,610	17,576	11,943
March	37,628	36,364	18,269	12,349
April	43,226	53,215	15,039	11,231
May	70,177	56,853	19,441	6,725
June	14,841	12,404	4,916	622
Total—8 months ..	376,237	319,945	137,136	93,727

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MARKETING OF BEESWAX.

L.856. Imperial Institute, London, S.W.7,
2nd April, 1935.

Sir,

Your letter No. 15050/1/35 of the 4th February, transmitting copies of correspondence with the Governor of Sierra Leone on the subject of the development of an export trade in beeswax from the Protectorate, was duly received at the Imperial Institute.

2. As you will be aware, the subject is one of particular interest to the Imperial Institute in view of the work that has been done by the Institute in attempting to increase and improve the production of beeswax in the Empire.

3. It had long been felt that the production of beeswax in British countries might well be improved, and in 1931, following the imposition of the protective tariff on foreign product, a Memorandum on the production of beeswax in the Empire was prepared at the Imperial Institute for the Empire Marketing Board by whom, it is understood, the document was circulated to the countries concerned, with a view to encouraging the production of beeswax wherever circumstances were favourable.

4. Since that date the greatest progress, apart from that made in Sierra Leone, which forms the subject of your communication, seems to have been made in Tanganyika. In 1932, the Imperial Institute received a request from the Director of Agriculture, Tanganyika, for information as to the characters and prices of standard grades of beeswax in this country. Particulars were furnished accordingly, together with a "Note" on the conditions for marketing beeswax to the best advantage. Information was also supplied regarding the clarification, cleaning and bleaching of beeswax. Subsequently arrangements were made for the Assistant Entomologist, when home on leave, to interview a leading member of the trade with regard to the requirements of the market.

5. As the outcome of this work the Department of Agriculture in 1933, forwarded to the Imperial Institute a bulk sample of beeswax collected and prepared in the country for examination and report. The sample was examined at the Imperial Institute and inspected by merchants who reported very favourably on the wax and offered to purchase consignments of similar quality at £82–90 per ton. Unfortunately the supplies of "improved" beeswax in the Territory were not sufficient to meet these demands but steps were taken by the Department to bring the offers to the notice of local shippers, and it is hoped that the beeswax industry of the Territory will before long be established on a satisfactory basis.

6. The situation in Sierra Leone appears to be similar to that in Tanganyika, the most important point in each case being the organisation of adequate supplies to meet the demand following the shipment of promising trial consignments.

7. The Imperial Institute will be glad to be of any assistance that may be possible in connection with the Sierra Leone beeswax industry, and also in regard to the marketing of honey, to which reference is made in the Memorandum by the Commissioner, Northern Province, dated 1st December, 1933.

8. The possible revival of the export of beeswax from the Gambia has recently engaged the attention of the authorties in that Colony and a trial consignment of about 12 cwts. is at present in the hands of the

Crown Agents for sale. A sample of this wax was submitted to the Imperial Institute for a report on its quality. It was found to consist of clean unadulterated beeswax of normal composition and to resemble closely a previous sample from the Gambia examined at the Institute in 1930, which was regarded in the trade as quite suitable for the market.

9. I may add that an article on "The Production of Beeswax in the Empire" will apper in the next issue of th Bulletin of the Imper al Institute. The information contained in the Memorandum referred to above is included in this article, proofs of which are enclosed.

I am, etc.,
(Sgd.) H. A. F. LINDSAY,
Director.
(Sir Harry Lindsay).

The Under-Secretary of State,
Colonial Office, S.W. 1.

THE MARKETING OF BEESWAX.

In order to market beeswax to the best advantage the following points should be noted. The principal requirements of a good beeswax are that it should be of good colour, clean in appearance, free from dross (dead bees, etc.), and pure (unadulterated). Hard beeswaxes are preferred.

Good beeswax is of an orange, or golden-yellow to lemon-yellow colour, and, other things being equal, lighter coloured samples are generally more highly valued. It is not possible to draw up a scale of grades corresponding to colours, nor is it expected that beeswaxes from different countries should be identical in characteristics. What is more important is that the product obtained from any particular source should be of uniform quality, so that purchasers can rely on getting what they require. Such uniformity, coupled with regularity of packing, is stated by a leading firm of importers to be worth a premium of about £5 per ton.

The following is a simple and effective method of cleaning beeswax, i.e., of freeing it from various impurities. The crude wax is melted, preferably by steam heat, in a large double-jacketed tank or pan. The use of direct heat may involve the risk of darkening the wax and also of its catching fire.

The solid impurities, together with any remaining liquid matter, such as honey or water, go to the bottom of the vessel, whilst the wax floats on the top and on being allowed to cool solidifies into a solid block which merely requires the lower surface to be scraped to render it ready for market. These scrapings can be remelted with the next lot of crude wax. This method is more effective than skimming off the liquid wax.

To attain uniformity for export, wax from different centres received at the port of shipment can be well mixed, remelted and cast into blocks of a regular size. The actual size of the blocks is not of great importance, so long as they are not too heavy, e.g., they may be, say, 10lb., 14 lb.,

Bleaching Beeswax.

For certain purposes, e.g., the manufacture of candles, it is necessary for beeswax to be white. The bleaching can be effected by the sun or by chemical means. Sun bleaching is the more satisfactory method but can only be used where the sun's rays are sufficiently powerful, as in the tropics and Southern Europe. In this process the wax is first purified by remelting in hot water to remove all traces of honey and other soluble impurities. The wax is then "shredded" by melting it and running thin streams of the molten wax over a revolving cylinder partially immersed in cold water. The wax solidifies in thin ribbons or shreds. These ribbons are exposed to the sun on canvas sheets stretched over wooden frames. Water is often sprinkled over them to minimise sticking, and they are frequently turned to expose fresh surfaces. To accelerate thorough bleaching, which only takes place on the surface, the wax may be melted aga n and reformed into fresh ribbons. The time taken in the bleaching process is dependent on the intensity of the sunshine and may be two or three weeks, or longer.

Beeswax can be bleached chemically by the use of various oxidising agents, such as hydrogen peroxide and chromic acid. To bleach by the action of chromic acid, the wax is melted and boiled in a lead-lined vessel with a solution of potassium dichromate and sulphuric acid. The solidified wax resulting from this operation is green, owing to residual traces of chromium salts. These can be removed by remelting and boiling with dilute oxalic or sulphuric acid. Such chemically bleached beeswaxes are not suitable for all purposes.

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COMPETITION FOR INCREASED BRANCH SOCIETY MEMBERSHIP.

With a view of encouraging the increase in membership of Branch Societies, Mr. W. Harper Watson, a member of the Board of Management, has very kindly donated a purebred Essex boar pig for competition among the Branches.

Below are published Rules and Regulations governing this Competition.

1. The objects are to increase the membership of Branch Societies and their interest in breeding pigs.

2. A purebred Essex boar will be given to the winning Branch to be held for service for a period of one year, and such a Branch would be eligible to compete in the Competition in every succeeding year.

3. The Branch registering the greatest increase in membership between the 31st August, 1935, and the 31st December, 1935, will be awarded the prize as the annual holders of the animal for the first year, and in after years the Branch registering the greatest increase in membership between 1st January and 31st December will be awarded the use of the animal for one year.

4. The number of members registered in the Records of the Jamaica Agricultural Society, on the dates named will be the numbers used for making the award.

5. No Branch with a membership of less than thirty on the opening day of the Competition nor less than sixty on the closing day of the Competition will be considered as eligible for the prize.

6. The Branch to whom the animal is awarded must undertake to keep and care the animal to the satisfaction of an officer of the Jamaica Agricultural Society and must have the animal available for inspection at all reasonable times.

7. If in the opinion of such officer the animal is not being properly cared for, and fed, the Board of Management is empowered to recover the animal and award the same for the remaining period of that year to the Branch who took second place in the Competition.

When corresponding with Advertisers, mention the Journal of the

JAMAICA AGRICULTURAL SOCIETY.

Editor's Note.

The article on Timber Seedlings appearing in the April Journal for this year had some errors among the Botanical names of certain of the seedling plants. The article is reproduced, the necessary corrections being reflected in the present publication.

TIMBER SEEDLINGS.

We have been advised by the Government Forest Officer that timber seedlings are now available for distribution to those interested. The need for afforestation is generally admitted and planters large and small should avail themselves of the coming seasons to embark on a campaign to establish economic and forest trees on those portions of their holdings appropriate to this.

These plants are free to planters and will be sent out in large or small quantities and if sent by rail there will be a small charge for cartage and railage.

The Forest Rangers and Nurserymen have been instructed to deliver plants to any small settler applying for plants on the spot at the nurseries at "Hardware Gap" in Portland, "Monklands" in St. Thomas, "John DeLuskie" in St. Mary, "Shooter's Hill" in St. Andrew, "Colonel's Ridge" in Clarendon and "Bergen" in Manchester, and the small nursery in St. Ann.

Information regarding the varieties available and their uses supplied us by the Forest Officer are given below.

Timber plants for free distribution, with Botanical names and uses and quantity.

Name.	Bot. Name.	Use, quantity.
1. Mahoe ..	Hibiscus elatus	Cabinet work, carriage and cart work, coopering, housework and shingles, boat work and as shade trees. A small quantity.
2. Bitter Damsel ..	Simaruba Officinalis	Used for making "Beacon" match-sticks and boards for indoor work. About 1,000 ready for distribution.
3. Cedar ..	Cedrela Ordorata	Housework, shingles, cabinet work, coopering and for numerous purposes. A very useful wood. A fair quantity now ready for distribution.
4. Wild Tamarind	Pithecollobium *Filicifolium*	Housework, turning, flooring, cabinet work, *posts and fuel. A splendid tree for re-*afforestation purposes as being leguminous. Its seeds grow rapidly. About 1,500 ready.
5. Wild Prune ..	Prunus occidentalis	House building, fuel, piles, posts, sleepers and *dye. About 500 on* hand.
6. Mahogany (native) ..	Swietenia Mahogani	Cabinet work, house building, framing. Very valuable wood. 400 to 500 plants on hand.
7. British Honduras Mahogany	Swietenia Macrophylla King	Same uses as above—about 300 plants on hand.
8. Fiddlewood ..	Citharexylum Surrectum	Joists and other purposes in house building, wain tongues, wagon and cart building, sleepers, naves, etc. A fairly fast growing tree. About 1,500 plants.

Timber plants for free distribution, with Botanical names and uses and quantity.

Name.	Bot. Name.	Use, quantity.
9. Bulletwood (white)	Dipholis Salicifolia	Bridge building, millwork, turning, cart-building, naves, house building, railway sleepers, posts and fuel. About 10,000 plants.
10. Bulletwood (red)	Dipbolis Nigra	Millwork, carts, bridge planks, telegraph poles, railway sleepers, piles, posts and fuel. About 2,000 plants.
11. Yellow Sanders	Buchenavia Capitala	Used in making "Beacon" match-boxes, inlaying and turning, flooring and indoor work, takes a beautiful polish. About 1,000 plants.
12. Pinus	Pinus Massoniana	Housework, carriage work, coopering, fuel, shingles and boards, bridge planks. A fast grower on high elevations, largely used on the Reserves.
13. Eucalyptus	Eucalyptus Citriodora	Imported from Australia. Carriage and cart work, furniture, fuel, housework and posts. A lovely fast growing tree, useful for afforestation purposes and for drying land, inclined to be a bit wet. Prefers high lands, but grows anywhere.
14. Redwood	Erythroxylum Areolatum	Turnary, tool handles, furniture, house building. Small quantity.
15. Juniper Cedar	Juniperus barbdensis	For interior ornamental housework, cabinet work, posts, very lasting and liked for its its lovely scent. About 8,000 plants.
16. Woman Tongue	Alhizzia lebbek	Millwork, fuel, posts, and house building, small quantity. A useful afforesting tree for dry areas. Seeds and plants available.
17. Sweetwood (yellow)	Nectantra Antillana	Indoor work on house building, posts, rafters etc. About 1,000.
18. Rose Apple	Jambosa Vulgaris	Fuel, coopering and posts. Splendid re-afforesting tree for all altitudes and conditions. In large quantities.
19. Yacca	Podocarpus Urbarni	Cabinet work, inside work, inlaying and as a beautiful shade or ornamental tree. Useful for elevations of 1,000 ft.up. Small quantity.
20. Bracatinga	Bracatinga	Said to be useful tree for re-afforesting denuded areas. Seeds recently imported from Brazil by Secretary, Jamaica Agricultural Society.
21. Wild Annatto	..	Fuel, posts and house lumber. Fair quantity.

E. M. Brown, F.O.,
1.4.35.

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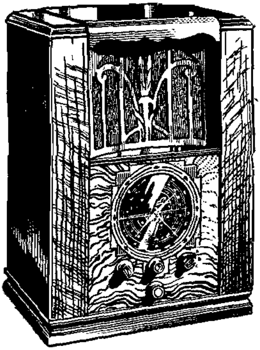

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Subscription to Membership only amounts to 5s. per annum and entitles you to the Journal free of other costs.

THE ASCENT OP SAP IN PLANTS.

To explain the rise of water to the top of plants, some of which attain to a height of a hundred feet or more, has been a very great problem for plant physiologists. Plants give out water from the surface of the leaves at all times, so that there is a regular stream of water flowing upwards in plants. This flowing uphill has appeared to many as a paradox. Three University of Chicago scientists, Homan, Young and Shull, have found that desert plants pull up the water, and the column of water in them can withstand, without breaking, a pull measurable in many tons per square inch. This pull which these scientists called *stromogenic tension* is in the neighbourhood of 22.5 tons per square inch which is equal to about 562.5 maunds per square inch. This tension therefore not only accounts for the ability of the slender wires of water in the tubes of trees to pull themselves to the tops of the tallest trees now living, but leaves a margin of strength sufficient to lift water to nearly ten times their height."

Abstracted from the Science News Letter. January 26, 1935.

HOUSEHOLD HINT.

Crystalized Mango—Recipe.

By Miss M. Pouyatt, Lewis Store Branch, J.A.S.

1 dozen Black mangoes (full or fit).
1 lb. Brown sugar (high grade).
½ lb. Granulated sugar.

Wash, peel and slice mangoes. Scald for 15 minutes in boiling water. Pour off water. Stew in ½ cup hot water, adding brown sugar gradually. Leave to cool; remove from syrup and place into shallow open vessel to dry. When nearly dry, sprinkle with granulated sugar; leave to crystallize, keep dry.

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BRANCH NOTES.

All Reports received are acknowledged in this section of the Journal. This month we have only been able to put in print Notes from Branches who have not yet had a publication this year.

Branch Secretaries should write on one side of the paper only.

[Ed.

TRELAWNY:—

Duanvale.—Meeting held 2nd September when there were present: Mr. D. H. Campbell, Vice-President in the chair together with 10 members and 1 visitor. The Chairman informed the meeting of his efforts to secure signatures to a petition to the Parochial Board for the working of the Mountain Road into South Field Mountain. His efforts brought nearly 80 signatures. It was decided that a letter be sent to the Parent Society with a copy of the petition asking the Parent Body to use its influence in the matter. It was felt that something should be done by the Branch to maintain interest among the members and to secure their attending Branch Meetings. It was suggested that next meeting should take the form of an Agricultural Concert. The Programme was arranged as follows. I Dialogue: Sick Fowl, by Messrs. R. Miller, George Hyatt, D. H. Campbell and others, II Story: Lame Jackass: Mr. Perrier. III Song: Mr. S. Brown. IV Recitation: My Goat: Mr. J. Hines. Minor matters were dealt with and the meeting adjourned with the singing of the National Anthem.

Duanvale P.O. S. N. JOHNSON,
Secretary.

Duncans—Meeting held September 17. Among those present were: Instructor Robotham, Mr. L. N. Grant President; 8 members and 15 visitors. The Instructor gave an interesting lecture on "Cottage Holdings Competition" and the value of mulching; he also promised to make out Rules for the Cottage Holding Competition." A Committee consisting of Rev. J. W. Maxwell, Dr. Embden, Messrs. L. N. Grant, J. N. Jones, S. Linton, J. Stockhausen and J. Wilson, was appointed to deal with this matter. There was a very interesting open air meeting held on 3rd September at Cary Park which brought a new spirit to the Society and the membership increased by 18 members. A debate was fixed for the next meeting on the subject of "Goats vs. Pigs." After the Roll Call was taken the meeting was brought to a close by the singing of the National Anthem.

Duncans P.O. L. V. SLOLEY,
Reporting Secretary.

LOWE River.—Meeting 16th September. Present: 10 members and a few visitors. Instructor Thompson invited all members and friends to the field of Mrs. L. Easy on the 4th of October, where he proposed having a demonstration on trench cutting. It was decided that members of the Branch should have an outing to Grove Place Farm at an early date. Authorised Person Henry Smith reported district in good order. The Instructor promised to give a lecture on Panama Disease at the next meeting. After minor discussions the meeting came to its close with the singing of the National Anthem.

Lorimers P.O. E. W. BERT,
Secretary.

Wakefield.—Meeting held September 3rd. Present were: Mr. C. E. Browne, 1st Vice-President presiding; Instructor M. N. Thompson; 11 other members and a good attendance of visitors. Teacher Wilson was also present. The Chairman welcomed the new teacher. He replied suitably. During the day the Instructor visited holdings and carried on demonstrations on pruning and budding of citrus, and supplied some vegetable seedlings. He also inspected the cane nurseries. Correspondence was dealt with. The Instructor read a letter from the Holly Hill Branch, on a motion that each parish should be represented on the Board of Management of the J.A.S. It was agreed to inform the Secretary that the matter would receive attention. The Instructor then lectured on the art of transplanting and growing of vegetables. He recommended stable manure as mulch for light soils. It was announced that a Coffee Improvement Competition would be started in November next. The Chairman in his closing address thanked the Instructor for his lecture. Minor matters were dealt with and the meeting adjourned.

Wakefield P.O. E. S. BLISS,
Secretary.

ST. ELIZABETH: Springfield.—Meeting held 6th September. Sixteen present with Instructor Wray. Secretary of Associated Branches advised next Half-Yearly Meeting at Grove Place but this branch was not in favour. Mr. Herbert Grey recommended as Authorised Person. Instructor gave a report of last Half Yearly Meeting and spoke on the proper curing of pimento and coffee. He also reminded members of the corn land in reference to sugar cane and advised caution. He encouraged the culti-

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vation of garden eggs and sweet pepper. Healthy discussion on the advantages or disadvantages of leaving banana stumps in the fields took place. The opinion was divided. Proposed that a purely local Show be held in connection with the Branch. Meeting closed with National Anthem.

Springfield P.O. J. A. Woodstock,
Secretary.

Malvern.—Meeting held 30th August. Present: Rev. S. C. Ashton, President; Mr. H. W. Lynch, Instructor,; eleven members, the students of the Bethlehem Training College and four other visitors. The Instructor had proposed to carry out a demonstration of citrus planting but that had to be postponed in consequence of rain. He gave useful and practical hints on the growing of Citrus and emphasised the necessity for careful handling of the fruit. Rev. R. J. Fleming, Principal of the Bethlehem Training College, gave a very interesting and instructive address on the growing of Irish Potatoes dealing principally with the following points: (a) Preparation of the soil. (b) Selection of seed. (c) Planting and subsequent care of the crop. (d) Diseases of the potato. The speaker was accorded a hearty vote of thanks. The Instructor spoke on Tomato culture and encouraged the cultivation of the Marglobe variety for marketing. He stressed the advantage of co-operative marketing of all crops. Minor matters were dealt with, and the meeting terminated with the singing of the National Anthem.

Malvern P.O. (Miss) E. I. Blake,
Secretary.

Middle Quarters.—Meeting held 5.9.35. There was a good turn out of members. The question of procuring a ram from Pedro Plains was discussed. After lengthy discussion it was decided that the Branch pay the expenses of the Instructor to convey the ram from the plains, and that members who wanted the service of the animal should contribute towards its feeding. The plans for a Concert in aid of the Jubilee Memorial Fund were dealt with. The Secretary read letter from the Surveyor General re the acquisition of the morass lands. The matter of how the swamps should be acquired was dealt with in full. It was decided that each rice grower be allotted one acre at a rental of one shilling per year for the cultivation of rice. Rice growers who were non-members of the Society, and wanted land should pay two shillings per year and so become "de facto" members of the Society (the extra shilling being membership fee). The members begged to thank those who were instrumental in getting the morass lands for the Branch. It was decided that circulars be sent to absent members informing them of the available lands. Two Authorised Persons gave report of everything in good order. Mr. R. Roxburgh was elected Reporting Secretary of the Branch. The meeting ended with the singing of the National Anthem.

Middle Quarters P.O. Ron. C. Roxburgh,
Secretary.

ST. MARY: Albion Mtn.—Meeting held September 5, 1935. Present were: Mr. Eml. Thompson, President and twelve other members. The Assistant Secretary reported that a letter had been sent to the Parochial Board reporting free labour efforts on Road No. 22, and asking for a Special Grant of £20 to open up the said road. It was decided that moneys once collected for road purposes be delivered over to the Parochial Board to be expended to the best advantage of both Nos. 39 and 22 Roads, and that Messrs. M. Robinson and C. Stewart be asked to make settlement of all money collected. The meeting expressed dissatisfaction at the services of the Road Warden in connection with No. 22 Road. The Secretary gave report on prices of Jersey pigs, and made reference to the Jubilee Fund. Report of the only Authorised Person present was taken and the meeting came to a close after lively discussions.

Alston P.O. J. E. Francis,
Secretary.

Baxter's Mtn.—Meeting 17.9.35. Matters concerning Authorised Persons were dealt with. Instructor Jones conveyed the good wishes of the Supervisor and Mr. Harper Watson to the Society. They were visiting neighbouring districts. Points discussed at the last Half-Yearly Meeting were touched on by the Instructors to be continued at the next meeting. He demonstrated budding navel orange in the school garden and setting out cane tops P.O.J. 2878. An address was given by him re Cultivating and Growing. He advised members to cultivate and eat more vegetables and fruits. Vote of thanks was accorded him. A request was made for road improvement. The debate "Corn" versus "Peas', was closed, "Corn" won the contest. Roll Call showed 16 members, 2 visitors, the Instructor and Secretary present. It was decided to invite Mr. Baxter, Secretary of the Parent Society, to the next meeting of the Branch. The National Anthem closed the meeting.

Annotto Bay P.O. R. J. LAWSON RICKETTS,
Secretary.

Richmond.—Meeting held 30th August. There was a fair turnout of members. The Instructor was in the district for the whole day. He visited Mr. Schliefer's banana cultivation. Later in the day he demonstrated at Mr. A. Allen's cultivation, and at 3.30 attended the Meeting. He was greatly impressed by the way in which the members handled the various points raised. It was unanimously agreed that the Plant Disease Inspector be written to, asking him to send a drum of the oil for the treatment of diseased bananas to be kept by Mr. A. Allen. The Instructor gave a lengthy address on members holdings, intensive cultivation, and the practice of burning the land. He also advised the members to cultivate vegetables on a large scale. A new member was added to the Roll. The singing of the National Anthem brought the meeting to a close.

Richmond P.O. CHARLES GREGG.
Secretary.

Wood Park.—Meeting held 10th September. There were fourteen members present including Messrs. W. S. Robinson, President and S. M. Roche, 1st Vice-President. Apologies for absence were submitted and sustained. The proposed discussion on outing to Grove Place was deferred. Meeting agreed to outing to Nova Scotia, Mr. Vermont's property, on Wednesday, 18th September. Secretary to make all necessary arrangements. It was agreed that the Branch contribute 10/6 towards the T. B. Fund through the St. Mary Committee. Subject of waste bananas was brought up and it was agreed to place dried bananas, breadfruit, etc. on the Agenda for discussion at the next meeting. Mr. Grey brought up subject of Taxation. The Secretary was instructed to approach the Government through the Parent Society, asking them to extend the time for one month during which time they would continue to forego surcharges provided the parties making payments had paid a part of their taxes in September. A new member was enrolled. Meeting closed with the National Anthem.

Pembroke Hall P.O. C. L. A. STEWART,
Secretary.

ST. JAMES: Bickersteth.—Meeting held 5th September, 1935. Present: Mr. L. Wilson, 1st Vice-President, presiding, 8 members, and 2 visitors. Welcome was extended to all. The members were reminded of promised contributions to the Jubilee Memorial Fund. Minor matters were then dealt with and the meeting adjourned after the singing of the National Anthem.

Montpelier P.O. LEO. SPENCE,
Secretary.

ST. ANN: Bamboo.—Meeting held 31.8.35. Present: Mr. John Rickman, President; Instructor Mr. C. V. Atkinson and wife, a good turnout of members and 2 lady visitors. The judging of the Corn Competition was a pleasant feature and added zest to the meeting. The 1st prize of 10/6 was won by Mr. S. Richards, 2nd prize of 6/- by Messrs. Walker and Campbell, 3rd pzize by Mr. John Rickman. There was also a consolation prize of 1/- given to Mr. Ernest Tait. It was agreed that another prize giving shoulp come off in December for the best cured coffee. Letter was received from the Church Committee acknowledging amount of 5/- sent by Branch and promising the use of the building for the future. The President suggested that the member for the parish, the Chairman of the Parochial Board and Mr. Stanley Lyon, M.P.B., be written to, inviting them to the next meeting. This was unanimously carried and the Secretary was asked to issue the invitations. The hour being late the Instructor's address was deferred. "The King" was sung and the meeting adjourned.

Bamboo P.O. J. LOWE,
Asst. Secretary.

MANCHESTER: Craighead.—Meeting 10.9.35. Present: 18 members and 3 visitors besides Instructor J. A. Graham. The report of Authorised Person Faulkner was taken. He observed the increase in praedial larceny of bananas and the great difficulty in securing conviction of the thief. Relationship among the people stood as a harrier in the way of the police, and a shield to the offender. The unlicensed buyer served as a very convenient avenue through which the fruit passed into the market. A resolution requesting the Government to view the matter seriously and take such action as will remedy the

situation was passed. The Instructor addressed the metting on the cultivation of tomatoes, and also potatoes. He commended these objects of culture to their serious consideration, and pointed out the benefit to be derived from the venture. He said that other objects such as the egg plant and sweet pepper were also in demand and could be taken in hand to great advantage. At the close of the address nearly all those who were present enrolled their names as members of the "Vegetable Club." The President thanked the Instructor and Messrs. J. A. Davy and C. H. Wolfe also expressed their pleasure at being present and hoped that the Branch would endeavour to take its place among the most progressive Branches of the Island.

Craighead P.O. E. CAMPBELL,
Secretary.

Comfort Hall.—Those present at the meeting were Mr. D. D. Palmer, President; Instructor, Mr. Thompson, along with 19 members and 13 visitors. Arising out of the minutes the Instructor gave a lengthy talk on the Orange Competition. The Citrus plot and the Coffee Competition were again discussed. It was agreed that 25 plants be tried instead of 50. It was moved and seconded that the Secretary of the Parent Society be written again about the purchasing of a Ram Goat for the Branch. A discussion on the condition of the road took place. Dissatisfaction with the method of distribution of road work was expressed and the Secretary was directed to take up the matter with the Parochial Board. Mr. Perrins read clipping from the Gleaner regarding the Half-Yearly meeting in reference to the Governor's speech on the growing of tobacco, etc. S. J. Martin made a suggestion that members should try more small crops such as cabbage, tomato, etc. Three new members enrolled. The meeting closed by singing of the National Anthem.

Comfort Hall P.O. W. H. WHITE,
Secretary.

Royal Flat.—Meeting held 11th of September. There were ten regular members present. As arising from the minutes the Treasurer was directed to dispense with citrus plants in the nursery as quickly as possible. The Secretary read statements re the Ram subsidy; the publishing of reports of meetings; and the visit of the Bee Instructor, Mr. Coote. A very concise and helpful report was given by the Delegate to the Half-Yearly General Meeting, July. The Treasurer's report followed. A resolution was brought forward asking for the reduction of telegrams from 9d. to 6d. The Instructor then gave a very splendid lecture on the care of coffee trees, and the preparation of the berries for market. A hearty vote of thanks was accorded him. The National Anthem brought the meeting to a close.

Williamsfield P.O. H. L. JOHNSON,
Secretary.

ST. CATHERINE: Princessfield.—Meeting 23rd September. There were present Mr. I A. Peterson, President; Mr. C. S. Byles, Instructor and four others. Correspondence was read and dealt with. Three Authorised Persons reported all correct. Working Committees gave their reports and also the Function Committee relative to a Pleasant Sunday which was held on the 22nd September at 3.30 p.m. The Roll was called. After minor matters were dealt with the meeting was brought to a close by the singing of the National Anthem.

Bog Walk P.O. P. G. C. GRAHAM,
Secretary.

Springfield.—Meeting held 10th September. Present: B. A. Forrest, Esq., President; and 12 other members and one visitor. Instructor L. A. M. B. Coke came late on account of his hard day's work with the Supervisor and some trouble from his car. He briefly addressed the meeting. He encouraged the members re the proposed visit to Hope Gardens. Seven Authorised Persons present gave their reports. The President said that Authorised Persons should not always wait for a call but should be vigilant. After some discussion the meeting terminated with the singing of the National Anthem.

Guy's Hill P.O, S. C. MATTHEWS,
Secretary.

Victoria.—Meeting 19th September. A. Harvey, 1st Vice-President presided. There was a full turnout of visitors and members. After the reports from Authorised Persons and Working Committee were taken, the Rev. L. M. Beverley, one of the visitors gave a very timely address urging on the members the necessity for their continued interest in the Society; the need for regular attendance at Branch Meetings; the wisdom of co-operating with and following the advice of the Instructor. He urged on all present the dignity of labour and commended the Government for the steps taken in protecting Public Health, and the products of the country so that good market values may be obtained. Miss P. Gordon enlivened the meeting with a song. Mr. Dockeray's resolution re Concert to aid the Jubilee Fund was adopted, and a Committee was formed to deal with the arrangements. After Miss E. Lambert's humorous recitation, the delegate to the Half-Yearly Conference held in July gave her report, which was received. After a song by the school children and a recitation by Miss L. Watts, the Instructor Mr. C. S.

Byles spoke on the state of the foreign markets in connection with coffee and citrus fruits, and urged on the members the need for better curing of the coffee and proper handling of the citrus fruits, also the procuring of the necessary appliances in reaping the citrus fruits. He offered to demonstrate the use of the appliances. He made mention of the Government's assistance in Citrus culture so that members can be supplied with seedlings. Discussion on the need of a pulper for the Branch was deferred. After minor matters and the Roll Call were taken the meeting closed with the singing of the National Anthem.

Linstead P.O. M. L. BURRELL,
Secretary.

WESTMORELAND: Porters' Mtn.—Meeting held September 14. Present: Mr. D. N. Clarke, President and 11 other members. The President emphasised the importance of each member doing his best to make this Branch a flourising one. Re application for a Corn Mill the Secretary read letter from the Parent Society, stating that a corn mill, with a funnel to hold a pint, was available for 15/-. After a long discussion it was agreed on that a bigger one be enquired for. Re the road, the Secretary said that a petition should be sent to the Parochial Board without delay, by the taxpayers of the Porter's Mtn., McField and Welcome Districts. It was also suggested that a resolution from the Society be sent to the Board. The resolution was deferred for the October Meeting. The Agricultural Instructor, who was down to give an address, and who should visit the holdings of some of the members, was unavoidably absent. The Secretary suggested that it would be a good thing to have a debate on some agricultural subject at the next meeting and it was decided that the following subject be debated. "Resolved that cane is more payable to cultivate than Banana." After minor matters were dealt with the meeting closed with the singing of the National Anthem.

Ramble P.O. D. F. BOWEN,
Secretary.

TRELAWNY: Bunker's Hill.—Meeting 2.9.35. Present: Mr. E. B. Pickering presiding, Instructor, M. N. Thompson, eight members and some visitors. The following were discussed (a) A Coffee Growing Competition. (b) Nature of distribution of prizes. (c) The growing of yams on the plot. Two Authorised Persons were present. They made no report. A new member was enrolled. Some minor matters and the singing of the National Anthem brought the meeting to a close.

Wakefield P.O. P. H. BROWN,
Secretary.

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Branch and Secretary.	Date of Meeting.	Attendances.	Business.
St. Thomas.			
Aeolus Valley (Robert E. Stewart)	3.9.35	12	Jubilee Memorial Fund. Proposed visit of His Excellency the Governor. Addresses by President and Instructor McLaren.
St. Catherine.			
Bellas Gate (A. A. McCurdy)	9.9.35	..	Road. Authorised Persons. Presentation to Secretary. Tools. Social.
St. Mary.			
Epsom (Fred. Edwards)	4.9.35	9	Jubilee Memorial Fund. Routine matters.
Hampstead (H. G. A. W. Davis)	16.9.35	10	Manure. Pig-rearing. Coffee and Banana Industries also Vegetables and Limes. Pimento. Journals and day for meeting.
Long Road (Miss Z. E. Josephs)	16.9.35	..	Water Supply. Authorised Persons. Address by Instructor D. A. Jones.
Flint River (Miss M. R. Dawkins)	12.9.35	22	Juvenile Branch. Report of General Meeting. Authorised Persons. Resolutions. Address by Instructor D. A. Jones.
Turnberry (E. L. Welds)	24.9.35	28	Small Stock. Social. Citrus planting. Authorised Persons. Service of D.M.O. re Yaws.
Westmoreland.			
Kentucky (A. M. Scott)	20.9.35		Grindstone. Authorised Persons. Routine matters.
St. Andrew.			
Mavis Bank	31.8.35	15	Small Stock. Experimental Plot. Soil Fertility.
St. Elizabeth.			
Upper Pedro Plains (I. S. Millard)	6.9.35	..	Tomato cultivation. Scheme for "Agricultural Week."
Clarendon.			
Red Hills (A. E. Mills)	10.9.35	32	Panama Disease. Jubilee Memorial Fund. Address by Instructor Shirley.
Trelawny.			
Spring Garden Rock Spring (Miss L. M. Edwards)	12.9.35	..	Jubilee Memorial Fund. Authorised Persons. Excursion to Grove Place Farm. Coffee Competition. Govt. Savings Bank. Address by Instructor.
Ulster Spring (I. C. Williams)	9.9.35	..	Banana cultivation. Report of General Meeting. Authorised Persons. Address by Instructor Thompson.
Wait-a-Bit (I. L. Rogers)	11.9.35	..	Report of General Meeting. Mr. Watson's offer re increased membership. Address by Instructor.

Notes have been received from the *Mt. Providence* Branch (Clarendon) and *Lower St. Johns* (St. Catherine) but we regret we are unable to publish these as the Branches have not yet affiliated this year. We trust they will do so early.

Ed.

Juvenile Branch.

ST. ANDREW: Gordon Town.—This Branch was started in January, 1935 by Dr. R. L. Chamberlain and Teacher Goulbourne, President and Secretary, respectively of the Senior Branch. The three schools, Gordon Town Wesleyan, Gordon Town Roman Catholic and the Grove Anglican, combine and meet monthly at each school in turn. Several addresses have been given by the officers and the present Agricultural Instructor. Mr. Henderson takes great interest in the branch and is leaving no stone unturned to have it running on the best lines. The children are very keen and promise to make this project a success. A very interesting address was given to them on Thursday the 29th August at the Grove School by Mr. Glaister Baxter, Secretary of the Jamaica Agricultural Society. He spoke on "Poultry Rearing." He explained the formation of the egg, the hatching of the chicken and its care up to its old age. Sample of boxes that should be used by laying hens were shown. The children listened attentively and got many new ideas. He succeeded in getting all who listened to love poultry and quite a few are anxious to start poultry rearing. The Demonstration Plot is being considered and the Instructor is trying hard to have this going early in the new year.

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Christmas Messages.

OUR PRESIDENT, HIS EXCELLENCY THE GOVERNOR.

I have pleasure in sending a Message of goodwill to the agriculturists of Jamaica through the Jamaica Agricultural Society's Journal for December.

TO ALL AGRICULTURISTS.

In your prosperity lies that of this Colony. I can assure you that Government is fully appreciative of your efforts, desirous to augment them and ready to assist you as far as it is financially possible to do so.

It has been a disappointment to us all that the Colony should have been visited by severe storms which have done much damage in certain districts, though we must be thankful that we escaped major disasters and that we did not suffer as did many of our neighbours from loss of life and from serious damage to property. As it is we have been able to export up to the end of October over nineteen million stems of bananas.

May the year 1936 see this export considerably augmented. May our markets and our prices continue to be favourable and with God's will may we be spared from any disasters. May we contribute to our own success by continued industry and further adaptation of the sources of information which agricultural experiment is supplying.

I hope that the results of the works of the Agricultural Department and of the Society may be seen in increased interest in improved methods of cultivation and the more frequent use of manures, resulting in still higher returns on the crops.

With the additional Loan provision now made, Government hopes to see further developments in Land Settlements, in the opening up of new areas for cultivation, in irrigation, in reclamation of Swamp Lands and in agricultural development generally, while at the same time agriculturists will benefit as all other workers in the Colony, from improved conditions in our Schools and Hospitals.

A very happy Christmas to you all and may 1936 be for us in Jamaica a year of health and happiness, advancing our prosperity, improving our own usefulness and enhancing still further the reputation of Jamaica and Jamaicans.

EDWARD DENHAM,
Governor.

THE HON. C. C. WOOLLEY, O.B.E.

Colonial Secretary, and Member of our Board of Management.

It affords me much pleasure to be given this opportunity to extend to all agriculturists in Jamaica my best wishes for a very happy Christmas and real prosperity in the forthcoming year. In doing so I am particularly mindful of those agriculturists in areas affected by the severe storms in September and October last and I sincerely hope that the steps which have been taken to help them to restore their plantations will have the desired effect.

I trust that as a result of our united efforts 1936 will see a solution to many of the difficulties which beset our agricultural industries and

that it will be noteworthy as a year of marked agricultural progress, bringing happiness and prosperity to all who depend on the land for a livelihood.

C. C. WOOLLEY.
Colonial Secretary.

MR. T. J. CAWLEY, FIRST VICE-PRESIDENT.

The Editor of the Journal of the J.A.S. has with his usual courtesy asked me to contribute a message to the Members of the Society in particular, and the Agriculturists of Jamaica in general.

It must be obvious to all thinking persons, that the time has arrived, and the demands are insistent that we take counsel together, both Government and people, as to what are the best means of setting Agriculture on a firm basis, which will ultimately lead to prosperity and contentment for those who follow it as a life's occupation, as well as those who are incidentally dependent on it for their livelihood.

I have on more than one occasion called attention to the fact that the Society's educative efforts through its Instructors and Journal, and other means at its disposal for the agricultural education of the people, have not been taken advantage of to the extent they deserve.

Its Members, Direct and Branch, should at least be 10 times greater in number than they are at present, so as to command from Government the respect and support their efforts require.

It must be borne in mind that whilst the Society is a voluntary one, and supported by a small Government Grant, it is doing Government work of a kind essential to the success and good government of any country, at a cost that is a mere bagatelle, and its administration carried out by altruistic gentlemen, at no cost to the Central Government.

The recurrent storms and low prices appertaining for our products, have reduced Agriculturists to a low financial status, the majority of whom without credit or reserve are entirely dependent on such financial help as the Government from time to time may offer.

This condition is out to smother initiative, ambition and enterprise, which are the chief characteristics of a successful agricultural people

Until the Government becomes aware of its dependence on, as also its responsibility to Agriculture for the main portion of its revenue, and have the courage and ability to formulate schemes to provide easy Agricultural Credit, remunerative markets for the sale of the people's products, the settlement of the people on lands that are reproductive, the general agricultural eduction of the people as to how to grow and prepare for market their products, and to grow the varieties required by the markets of the world; there will be no material agricultural progress which will lead to prosperity happiness and contentment.

In other advanced countries of the world, large sums of money are being spent to develop agriculture and educate the people, and it is high time that Jamaica arise to its responsibilities and possibilities.

Fellow Agriculturists, we are passing through a trying time, which will last for several months to come and test your endurance to the utmost. Yours is the opportunity to show courage and resourcefulness, in the restoration of your destroyed fields, by devoting energy, ability and industry to this end, and the sooner you begin, the earlier the harvest will be.

Be not discouraged, it is ours to fight and win out.

Wishing you a Happy 'Xmas, and a New Year with glimmerings of prosperity and happiness on its horizon.

Faithfully yours,
T. J. CAWLEY.
Troja P.O.

REV. W. J. THOMPSON, J.P., 2nd VICE-PRESIDENT.

Secretary J. A. Society.

Thanks for the privilege and pleasure afforded me to send to the Journal of the Jamaica Agricultur l Society a Christmas Message this year.

In view of the likelihood of repeating, it must be very brief, and to the point.

It is a generally accepted saying that "hope deferred maketh the heart faint," and it is the natural attitude of all, but particularly our agriculturist, on whom so much of the island's prosperity depends at this time, to lose hope and heart when notwithstanding the prolonged drought in some places and minor setbacks in others, we have been visited with two hurricanes following closely in the footsteps of each other, with no financial provision made for the restoration of fields and crops. It takes a brave man to keep heart, and yet we must travel a long way to find a braver class of people than the Jamaica Agriculturist large or small.

It would appear that these unfortunate and disastrous events add more to that phase of their character and although it will take some time for the field to be ready for Harvest, yet already one sees signs of renewed energies and a determination to courage and fortitude.

My key word therefor, is "Be of Good Cheer."
Make the best of what comes to you, "It is Christmas"
The Day of rejoicing and gladness of heart,
"Let not sorrow dim your eye." Be strong for the struggle of life.
"If thou faint in the day of adversity, thy strength is small."
"Take the good of Everyday
And hope for more tomorrow."

I must not omit to include in this message our staff of officers who toil in, and out of door, some amidst the heat and dust and other trying circumstances of office duties others under the varying and irresistible conditions of dew, cold and rain. To them I say be not weary in doing well, As what is worthwhile doing is worthwhile doing well.

MR. U. THEO. MCKAY, J.P., 3rd VICE-PRESIDENT.

The question of Agriculture has engaged such serious attention during the current year that none of us could with any justification plead its neglect, and the light beating on the subject has been so continuous and so fierce tha the strong and weak points, the good and bad patches, have all been shown up, as a result of which those who have for years failed to appreciate the true value of Agriculture to a country especially to Jamaica, grasping for the first time its importance have been so dazed that they see nothing besides the weak points and the bad patches and and so become hysterical in their denouncing of what they regard as much indifference. We who have been working for progress and have

witnessed much and material improvements in our Agriculture heartily welcome these accretions to our ranks and while not adopting their methods of wholesale condemnation, regard them not only as co-operators in a cause that is inferior to none in its claim, but as a justification of the campaign we have been carrying on and a vindication of the attitude we had all the while adopted.

The year now coming to a close has not been a good one for Agriculturists in Jamaica as the main products on which we depend have been very hard hit by prevailing high winds generated by giant hurricanes passing near to us. These calamities have again demonstrated the necessity for a State Agricultural Bank to give facilities for Agricultural Credit, and like the boy in Pear's Soap advertisement, the Agriculturist will not be happy until he gets it. We are down but not out and ringing in our ears are the words "Go labour on," words so inspiring, so encouraging that I am impelled to wish every Agriculturist, the large as well as the small," A happy Xmas and a prosperous 1936."
Frankfield.

HON. R. EHRENSTEIN, M.L.C.

Member of Board of Management.

I have much pleasure in acceding to your request to send a Christmas Message through your Journal to the Agriculturists of Jamaica.

To the Agriculturists of Jamaica:

The year 1935 has been a very trying one for us all and more than ever so for Agriculturists. No sooner did it appear likely that we were on the road to witness a complete recovery from the various setbacks of previous years than our hopes were dashed to the ground by the disastrous windstorms of September and October last, and instead of the steady expansion of our export trade we were suddenly confronted by a severe curtailment in the available quantity of our chief marketable produce.

As Agriculturists, such disappointments have not been uncommon in your experience and rather than give way to a helpless despondency you have always met each recurring calamity with renewed courage. In this you have always had the sympathetic interest of the community as a whole. But if there is one feature that particularly emerges, it is this: Increased attention must be given to securing a greater diversity of crops and more extensive cultivation. Experience has shown how utterly necessary this should be, and until this need has been effectively met it appears almost certain that we will ever be at the mercy of the periodic cycles of depression that have been so characteristic of our economic life in the past.

With best wishes for a Happy Christmas and a New Year of increased Prosperity.

Sincerely yours,
R. EHRENSTEIN.

MAJOR A. RUPERT MOXSY.

Member of Board of Management.

It is indeed an honour and a pleasure to be allowed to extend to the Agriculturists of Jamaica and the readers of the Journal of the Jamaica Agricultural Society, Christmas Greetings for 1935. In doing so may

I, once more, lay stress upon the importance of Agriculture in this Island home of ours; a small but remarkable little country subjected to frequent disasters beyond human control; visitations sent no doubt to try us, yet eventually, to make better men of us.

The Jamaica Agricultural Society has helped, and is helping us along the difficult march of agricultural progress, nevertheless, there is a never-ending " trek" ahead for the Society and ourselves. Old methods must give place to new, science must assist brawn, our efforts of the past must be followed by still greater efforts, always keeping before us the use of our lands to their fullest advantage and the production of that which is best, so that we may compete successfully with world market conditions which are daily growing more difficult. We cannot and will not allow setbacks to dismay or discourage us. Every dark cloud has a silver lining, and it is in the earnest hope that the sunshine of a true prosperity and contentment is at hand, to assist our united, wholehearted and undaunted efforts for the advancement of our country's welfare, that I wish all a Happy 'Xmas and Bright and Prosperous 1936.

Chapelton. A. RUPERT MOXSY.

16.11.35.

HON. H. E. ALLAN, M.L.C., PORTLAND.

It is very gratifying to note that Agriculturists all over the Island are taking a keen interest in the future development of the Colony.

During the past five years, over twelve thousand repatriates have returned from Cuba, while also fifteen thousand who have been able to pay their way have returned home.

In addition to this there is the ever-increasing number of educated youths who are leaving our Training Colleges and Schools yearly.

All these must be taken care of. The problem of Unemployment in Jamaica must be solved, and it is to Agriculture we must turn for this solution.

There is the clarion call of "Back to the Land" but this call will be futile if the land' is not made sufficiently attractive.

Let us concentrate not merely on the growing of crops, but also on the developing of the refined and finished product from the soil so as to provide employment not only for the grower, but also for the intelligent, industrious and educated mind that may not be physically fitted for the sweltering labour in the field.

With such attraction, all classes will be served, and the clarion call "Back to the Land" will resolve itself into a chorus of invitation from one group of fellows to the other, and will reecho "Come to the Land!"

H. E. ALLAN,
M.L.C., Portland.

It is with very great pleasure that I respond to your request to contribute a message to your Journal.

As we approach the Christmas Season, our thoughts are carried back to the First Missionary. In spite of opposition His work is still being carried on, the greatest missionaries of to-day being, in my opinion, the Presbyterians and Wesleyans.

Though I would not regard all departments of Science as missionary

organisations there is no denying the fact that the Jamaica Agricultural Society may be regarded as being missionary in its activities. The work of this department, like that of all other missionary organisations is fraught with difficulties, chief amongst them being that of finance. The general impression seems to be that the Government is out of sympathy with the Agricultural Society, hence support is but grudgingly given, while criticism is free. I feel I voice the sentiments of my colleagues in stating that this is indeed a great mistake.

Our funds are not unlimited, and often help has had to be refused where it would be willingly given were it possible. Still, let the Agricultural Society but shew that grants made are invested to the best advantage, and in due time will come our, "Well done.......... I will make them ruler over many things."

(*This message carried no signature.—Ed.*)

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THE JOURNAL
OF THE
Jamaica Agricultural Society.

The more people do the more they can do; he who does nothing renders himself incapable of doing anything; while we are executing one work we are preparing ourselves for undertaking another.

Vol. XXXIX. NOVEMBER & DECEMBER, 1935. Nos. 11 & 12.

BOARD OF MANAGEMENT.

The regular monthly meeting of the Board of Management of the Jamaica Agricultural Society was held at the Office of the Society, 11 North Parade, Kingston, on Wednesday the 2nd October, 1935, at 11.30 a.m. There were present: Rev. W. J. Thompson, Chairman, and Mr. U. Theo. McKay, Vice-Presidents, Mr. W. L. Barnett, Acting Director of Agriculture (*ex-officio*), Hons. Geo. Seymour Seymour and H. A. L. Simpson, O.B.E., Major R. Moxsy, Messrs. Sidney Barton, R. A. Burke, C. O. Cover, T. P. V. McDaniel, D. D. Phillips and D. T. Wint; Mr. P. St. L. Bacquie, Supervisor of Instructors and the Secretary, Glaister Baxter.

Apologies for Absence.—

Apology for absence was submitted on behalf of Mr. W. Harper Watson.

Confirmation of Minutes of the previous Meeting.—

Copies of the minutes of the last meeting having been sent to the members of the Board, they were taken as read.

Mr. Wint pointed out that his name was omitted from the list of members present at the meeting. The necessary amendment was made.

On the motion of Mr. McDaniel, seconded by Mr. Phillips, the minutes were then confirmed.

Matters arising out of the previous Minutes.—

(a) *Secretary's Statement* was submitted as follows:—

30th September, 1935.

To the Board of Management:

Gentlemen:

On consultation with Mr. Wint it was considered advisable in view of the action taken by Government with reference to the building improvements that the sending forward of his resolution passed at the last meeting should be delayed.

All correspondence consequent on the deliberations of the Board at their last meeting has been carried through.

Yours faithfully,
(Sgd.) GLAISTER BAXTER,
Secretary.

(b) *Storage accommodation and modifications of present buildings—Report on Conference with Governor.*—The Secretary read the following:

September 28.

To the Board of Management:
Gentlemen:

I beg to report on the interview which took place between His Excellency the Governor and several members of the Board of Management on Wednesday 18th instant with reference to the proposed building improvements on premises Nos. 10, 11 and 12 North Parade.

His Excellency has not accepted our proposals as they stand and apparently has in mind not so much marketing and storage accommodation as exhibition accommodation and he instructed the officer of the Public Works Department present to submit fresh plans and estimate of costs on the lines outlined by him.

There were present at the interview the following members of the Board: The Director of Agriculture, Hons. E. A. McNeill, Chas. Reid, Geo. Seymour Seymour, Major A. R. Moxsy, Messrs. Sidney Barton, U. Theo. McKay, D. D. Phillips, S. M. Walker and D. T. Wint.

(Sgd.) GLAISTER BAXTER,
Secretary.

(c) *Details of rearrangement of Districts consequent on promotion of Mr. Hanson—Memo. by Secretary.*—The Secretary submitted the following:

September 28.

To the Board of Management:
Gentlemen:

The details regarding the rearrangement of districts consequent on Mr. Hanson's recent appointment are at present as follows and will be effective 1st October:

The Woodford, Red Hills, Rock Hall and Padmore Branches will be added to Mr. Henderson's area. The following Branches will be left to Mr. Hanson: Parks Road, St. Christopher's, Mannings Hill, Stony Hill, Lawrence Tavern, Unity, Tom's River, Brandon Hill, Mt. James, Glengoffe, St. Mary's (Above Rocks). These 11 Branches are concentrated in a thickly populated area easily accessible from Stony Hill, where Mr. Hanson resides.

I have not considered it advisable at this stage to add any Branches to Mr. Byles as the only two easily accessible to him are the Glengoffe and St. Mary's Branches, and as these Branches are affiliated with the St. Andrew Branches Associated I consider it wise at present to leave them as they are.

Mr. Henderson's Branches which he had before the change are: Barbican, Bloxburgh, Content Gap, Dallas and Constitution Hill, Gordon Town, Hall's Delight, Liguanea Mavis Bank, Westphalia and Tower Hill.

(Sgd.) GLAISTER BAXTER,
Secretary.

The temporary arrangements were approved.

(d) *Bee Industry: (i) Report of Deputation.*—The Secretary presented the following:—

30th September, 1935.

To the Board of Management:—
Gentlemen:—

Your deputation appointed to interview His Excellency the Governor with a view of placing the entire situation in regard to the Bee Industry Vote and the control of the Foul Brood Disease, met His Excellency at the Society's office in the forenoon of Wednesday, the 18th September.

There were present, Mr. D. T. Wint, Chairman of the deputation, Hon. C. A. Reid, Messrs. D. D. Phillips and Sidney Barton, Several other members of the Board who had met His Excellency previously on the subject of the building improvements were present and the Acting Director of Agriculture and Dr. S. Lockett were in attendance on His Excellency.

The Chairman of the deputation addressed His Excellency bringing to his attention the following:—

(i) That the subvention of £500 entrusted to the Society was so entrusted on the understanding that it would be used for instructional services in connection with the Beekeeping Industry.

(ii) That the Society has already committed itself to expenditure in this direction.

(iii) That certain sums have been charged to the subvention by the Treasurer without knowledge of the Society and that the monthly instalment of the subvention has been paid short this amount.

(iv) That the Department of Science and Agriculture is now, with the concurrence of the Society, spending at the rate of £10 per month, which the Society has agreed to pay from the subvention.

(v) That the expenditure already incurred to August 31st 1935, charged up against this subvention, amounts to £225 2s. 3d. and should it be decided to terminate the services of the present Bee Instructor it would be necessary to pay him his salary for the month of September and an additional amount to cover three months salary, which would amount to £148.

(vi) That the amount of £22 16s. 5d. has been deducted from the subvention for expenses incurred for inspection in connection with Foul Brood prior to the 1st July, 1935, and that the Society is committed to expenditure of £30 to cover three months expenses in connection with Foul Brood carried through by the Department of Science and Agriculture subsequent to the 1st July.

(vii) That these sums together would amount to £425 19s. 1d., leaving a balance from the subvention of £74 0s. 11d. which amount the Society considers would be entirely inadequate for carrying through an efficient campaign for the eradication of Foul Brood. The amount of £74 0s. 11d. would only be available if the Instructoral services in connection with the Beekeeping Industry immediately ceased, and the Board of Management feels that this would be a retrograde step.

(viii) That it was important that immediate and drastic action for the eradication of Foul Brood be taken.

A general discussion then took place and His Excellency intimated that he was unable to reconsider the appointment of the Bee Instructor as a Bee Inspector, and that he considered it advisable that a suitable person who could occupy both positions be appointed.

It was pointed out to him that the Board would at least be committed to three months salary if it were decided to make a change and that there were no funds available from the vote in view of the committments adequate for the control of Foul Brood Disease.

His Excellency then promised that he would take care of the expenditure necessary for the control of Foul Brood Disease for the ensuing three months.

With reference to the representations made regarding the amount of £22 16s. 5d. deducted prior to the Board of Management being advised that the subvention would be charged with the expenses for the control of Foul Brood Disease, His Excellency agreed that this amount be refunded to the Society.

(Sgd.) D. Theo. Wint,
Chairman.
(Sgd.) Glaister Baxter,
Secretary.

Mr. Wint, the Chairman of the deputation, moved the adoption of the report, and amplified it stating that the deputation pointed out to the Governor that according to the Law it was the responsibility of the Central Government to look after the eradication of all diseases.

Mr. Phillips stated that the Governor had expressed himself as not averse to the continued employment of the present Instructor, as an Instructor, but not as a Bee Inspector.

Mr. Burke seconded the adoption of the report and this was carried.

(ii) *Letter from C.S.O. re appointment of Messrs. Bacquie and Hanson as Authorised Persons re Bees.*—The following letter was submitted:—

16th September, 1905.

Nos. 6455/34.

"With reference to previous correspondence in regard to the outbreak of Foul Brood Disease of Bees in Kingston, I am directed to inform you that on the understanding that your Society is agreeable to the appointment, the Governor under Section 4 of Law 9 of 1918, "The Protection from Disease (Bees) Law 1918," the Governor appoints Mr. P. St. L. Bacquie and Mr. A. P. Hanson, Supervisiors of Instructors of your Society, to be persons to carry out the provisions of that Law.

2. The salaries and travelling expenses of these officers should continue to be paid by your Society out of the grant under Item 25 of Head XXXVIII of the Estimates for the current financial year.

(Sgd.) F. Brown,
for Colonial Secretary.

(iii) *Letter from C.S.O. re combination of positions of Bee Instructor and Bee Inspector.*—The Secretary read the following:—

7th September, 1935.

Nos. 6735/34.

With reference to your letter No. 124 of the 12th August, 1935, in regard to your desire that the Bee Instructor of you Society should be reappointed to be an Authorised Person under Law 9 of 1918, The Protection from Disease (Bees) Law of 1918, I have the honour to inform you that while it is desirable that the position of Bee Instructor should be combined with that of Bee Inspector, the Government is unable to approve of Mr. H. H. Coote being appointed as a Bee Inspector. It is suggested that your Society should take steps to see that it employs a suitable person who can combine the positions of Bee Instructor and Bee Inspector.

2. Meanwhile other arrangements for the inspection of apiaries are under consideration.

(Sgd.) F. Brown,
for Colonial Secretary.

The Secretary stated that he had received a subsequent letter from the C.S.O. as follows:—

30th September, 1935.

Nos. 6455/34.

"With reference to the correspondence ending with your letter No. 156 of the 17th September, 1935, in regard to the control o Foul Brood Disease of Bees, and to the Governor's visit to the offices of your Society on the 18th September, 1935, I have the honour to enquire when this Government may expect to receive the further communication from your Society on the lines intimated by His Excellency."

(Sgd.) A. R. Dignum,
for Colonial Secretary.

The Chairman said the matter had reached a stage where something final should be decided. The Bee Industry was the vital issue and that should not be allowed to suffer. In view of the correspodence before the meeting it was advisable to act on the lines suggested by the Governor, whether such action was regrettable or not. Sentiment would have to be left out of this business.

Mr. Wint said the question before the meeting was whether they would retain the services of the present Bee Instructor at a reduced salary and appoint a Bee Inspector or dispense with the services of the Instructor and employ one person who could combine both positions. In either case the grant available was £500 per annum.

Mr. Barton said in view of the fact that the Governoment was aware that the entire subvention was already allocated, he did not think it was competent for any one to tell the Board during the financial year that changes such as those proposed should be made. They should be allowed to carry on to the end of the financial year and then alterations could be made.

Mr. Phillips supported what Mr. Barton said and added that for the last nine years the grant had been administered by the Society without any alterations of their allocation being suggested by Government.

Mr. Seymour pointed out that the correspondence before the meeting indicated that the Governor was not prepared to accept the present Bee Instructor as Bee Inspector and he did not propose to pay sums in addition to the subvention for the employment of a Bee Inspector. He said that the Central Government would assume the expenditure for three months in connection with the expenses for the control of Foul Brood Disease. The Society would therefore not be damnified financially if the present Instructor was given three months notice under the existing conditions. He was in agreement with other members as to the responsibility of the Central Government for clearing up Foul

Brood, and this should not be foisted on the Society at all, but in so far as the correspondence was concerned he thought the best procedure would be to give the present Bee Instructor three months notice to terminate his services.

Mr. Wint suggested that someone could move that two posts be created and filled.

Mr. Seymour pointed out that it would be necessary first to terminate the services of the Instructor before any action could be taken and moved that the present Bee Instructor be given three months notice as from the 1st November next to terminate his services as Instructor in Beekeeping with the Society.

Mr. McKay seconding the resolution, said that the Governor agreed to be responsible for certain expenses for three months provided the Board did what he suggested. If the Bee Industry was of as much importance as it was said to be surely the case of one person should not be allowed to prejudice the situation.

The Secretary pointed out to the Board that by a resolution adopted at the last Half-Yearly Meeting the Board could not dispense with the the services of an employee unless there was two-thirds of the membership of the Board present and voting.

Mr. Seymour asked what had become of the former Rules governing Employees.

Mr. Burke said as the mover of the resolution at the General Meeting the interpretation of the resolution by the Board was not what he originally intended. What he meant was that if there were fourteen members present at a meeting the agreement of eight of them that an officer should be dismissed would warrant such a dismissal.

Mr. Wint suggested that since it was not necessary to give the notice before the 1st of November a Special Meeting of the Board could be called and the members specially notified that it was necessary to have a full attendance to discuss this matter of the termination of the services of an officer of the Society.

Mr. Simpson advised the Board not to pass the resolution. Under the circumstances he thought it necessary that the Board should comply with the demands of the resolution passed at the General Meeting. He suggested that if the Board had a lawyer he should be consulted for advice on the matter. He further suggested that the Government be given full knowledge of the situation and be requested to allow the Crown Solicitor to advise the Board regarding it.

Mr. Seymour said that under the circumstances with the consent of the seconder of his resolution he would withdraw the resolution in favour of Mr. Wint's suggestion that a Special Meeting of the Board be called to deal with the matter.

It was agreed that a special meeting should be called on Wednesday the 16th October, at 2 p.m.

Mr. Simpson suggested that a resolution should be placed before the next Half-Yearly Meeting in January which would repeal this resolution which confronted the Board, and was proven quite unworkable.

Mr. Burke said he did not agree *in toto* with what Mr. Simpson said. His opinion was that the resolution was not dictatorial. The meeting passed a resolution giving the Board their opinion on the subject. It was a request from the Half-Yearly Meeting to the Board. It was not compulsory for the Board to do what was asked.

The Rules of the Society that could apply in the situation were read and it was observed that the alteration of the Rules of the Society was

controlled by the General Meetings, but the employment of Officers of the Society was entirely under the control of the Board.

Mr. Simpson dealt briefly with the legal definition of the situation and Rules of the Society as he saw it from a casual glance at the book of rules and an article in one of the monthly Journals and again advised that legal advice be obtained.

Further consideration of the matter was deferred until after the luncheon adjournment.

The letter from the C.S.O. regarding the appointment of Messrs. Bacquie and Hanson as Authorised Persons in connection with bee diseases was considered. It was felt that whatever extra travelling was done by these officers consequent on their new appointments should be the responsibility of the Government and any such bills should be forwarded to the Government.

The meeting then adjourned for luncheon.

On the resumption there were present: Mr. U. Theo. McKay in the chair, Mr. Barnett, Acting Director of Agriculture, Messrs. Burke, Cover, McDaniel and Major Moxsy; Mr. Bacquie, Supervisor of Instructors and the Secretary.

It was decided to defer the Bee Industry matter until there were more members present, and the following matters were taken:—

(e) *Correspondence re Resolution on Coffee Industry.*—The Secretary stated that in connection with the resolution passed at the last meeting having reference to the coffee industry, he had received a letter from The Jamaica Imperial Association stating that the matter would be brought before their Council when no doubt a representative would be appointed to serve on the proposed Committee. He had also received a communication from the Acting Director of Agriculture signifying his willingness to serve on the Committee.

The Chairman suggested that as soon as the Secretary received replies from the parties invited to sit on this Committee a date should be fixed for a meeting.

Major Moxsy requested that the Secretary procure all available statistics for submission to the members of the Committee before the meeting.

(f) *Report from Show Committee.*—The Secretary stated that as directed by the last meeting of the Board he had submitted copy of this report to all the members, and it appeared in the minutes of the last meeting.

Major Moxsy moved the adoption of the report.

Mr. Burke seconded it for discussion.

After discussion it was agreed to adopt the report, deleting the parograph which recommended that entrance fees should be paid on all competitive exhibits, and the Secretary was directed to refer the matter to the Government right away.

During the discussion Messrs. Barton and Phillips came in, as also Rev. Mr. Thompson, who took the chair vacated by Mr. McKay.

Mr. McDaniel left the meeting.

Bee Industry.—

Discussion of the Bee Industry matter was then continued.

The Secretary at the request of the meeting read the resolution referring to termination of employment of the staff which was passed at the last Half-Yearly General Meeting as follows:—

Resolved that this Half-Yearly Meeting is of opinion that further Bye-Laws and Regulations for the guidance and Rules of the Agricultural Society with regard to the employment of the Secretary, Accountant, Assistant Secretary and the Instructors should be drawn up to:

(a) Give the Board of Management and the Officers above named the right to terminate their appointment by giving three months notice on either side.

(b) Provide for:

(1) The Board having power to suspend the Officer on halfpay pending an investigation, in the event of a *prima facie* case being made out to the Board against any of the above named Officers for misconduct, incompetence or deliberate neglect of duty.

(2) The Officer to be furnished with a copy of the charge or charges against him at least seven clear days before the investigation.

(3) The Officer being allowed to call witness or witnesses to appear before the Board of Management to testify on his behalf.

(4) The Officer, with the permission of the Board, to be legally represented at his own expense.

(5) The Board of Management informing the Officer some reasonable time after the investigation the majority decision of the Board.

That such Officer, if he so desires, shall have the privilege to appear before the Board of Management or any Committee appointed by the Board of Management, accompanied by a legal adviser who shall have audience and that the Board of Management should have power to dismiss any Officer only when two-thirds or more of the entire membership of the Board of Management are present and have voted.

Mr. McKay pointed out that the resolution was not yet functioning as the rules governing the employment of the staff had not yet been revised and therefore the Board was at liberty to carry on as they had previously done, and he moved that the necessary notice be given to the Bee Instructor.

Major Moxsy seconded the motion for discussion and suggested that someone move that the matter be deferred.

On the motion of Mr. Barton, seconded by the Chairman, it was definitely and finally agreed that the Special Meeting of the Board arranged for during the morning session of the meeting, be called to deal with the matter.

The Secretary was directed to advise the Hon. Colonial Secretary that the matter was receiving the attention of the Board.

(g) *Report on Clerk, Seeds Department.*—The Secretary said he had been requested to make a report on the Clerk of the Seeds Department. He then detailed the duties that were required of the Clerk and stated the turnover and profits of the Seeds Department. He stated that he had found the clerk competent and keen on his work. He was endeavouring by study to further equip himself in accountancy and was studying shorthand and typewriting at his (the Secretary's) suggestion. He considered him having the capacity for preferment in the Society's employ as time goes on.

Mr. Barton moved that the Seeds Clerk be given an increase of salary.

Mr. Burke suggested that the matter be referred to the Office Committee.

Mr. McKay's suggestion that the matter be referred to the Estimates Committee was adopted.

Statement of Accounts.—

(a) *Statement for August.*—The Secretary stated that the Statement for August appeared in the minutes.

(b) *Statement for September* was submitted as follows:—

STATEMENT OF ACCOUNTS FOR SEPTEMBER, 1935.

Receipts.	Estimates.	Total.
	£ s. d.	£ s. d.
To Subscriptions	175 0 0	125 17 9
Affiliation and Journal Fees ..	175 0 0	175 5 0
Advertisements in Journal ..	350 0 0	81 13 0
Miscellaneous	10 0 0	11 10 5
Bee Industry Sales	30 0 0	14 14 3
Sales Department Profits 1935-36 ..	400 0 0	..
Government Grant	9,500 0 0	4,750 0 0
Grant for Bee-keeping Industry ..	500 0 0	227 3 7
Appropriation from Sales Department Surplus	657 5 0	..
	£11,797 5 0	£5,386 4 0
Balance from 31st March, 1935 ..	..	781 7 7
Agricultural Show Deposits	..	45 15 0
Citrus Competition Shilling Fund	..	22 12 0
Jubilee Memorial Fund	..	17 5 3
Seeds Trading Account	..	2,147 0 7
		£8,400 4 5
Less Expenditure as per contra	..	7,942 16 7
Balance	..	£457 7 10
	£ s. d.	
Cash on hand	42 11 0	
Cash at Barclay's Bank	148 4 6	
Cash at Royal Bank of Canada	266 12 4	457 7 10

Expenditure.	Estimates.	Total.
	£ s. d.	£ s. d.
By Personal Emoluments:		
Secretary and Office Staff	2,117 5 0	1,037 14 0
Instructors and Supervisors	7,671 0 0	3,848 3 2
Instructors' Course at Hope	125 0 0	71 19 2
Instructors' Tools and Contingencies ..	75 0 0	58 15 3
Secretary's Office and Special Travelling ..	100 0 0	71 0 8
Printing and Stationery	100 0 0	59 8 5
Printing and issuing Journals and Reports ..	800 0 0	135 8 6
Rent and Rates	58 0 0	28 3 0
Rent of Telephones	27 0 0	13 4 0
Postage and Telegrams	10 0 0	5 19 10
Office Equipment and Repairs	15 0 0	0 10 9
Incidentals	50 0 0	30 16 9
Auditor's Fee	25 0 0	25 0 0
Library Books	10 0 0	3 8 10
Show Equipment—Repairs	10 0 0	5 6 1
Experiments: Bombay Mango Industry, etc. ..	100 0 0	36 12 9
New Office Equipment	40 0 0	5 1 0
	£11,333 5 0	£5,436 12 2
Bee keeping Industry	500 0 0	267 12 3
	£11,833 5 0	£5,704 4 5
Agricultural Shows: Printing ..	..	22 0 0
Plant Disease Control	..	1 4 8
Citrus Budwood	..	10 9 11
Local Competitions	..	3 16 6
Travelling Advances: Instructors ..	..	322 10 0
New Show Equipment	..	38 7 0
Seed Distribution Advance ..	..	25 0 0
Jubilee Memorial Fund	..	20 1 9
Seeds Trading Account	..	1,795 2 4
		£7,942 16 7

(Sgd.) GLAISTER BAXTER

Questions.

Mr. Phillips asked if the Secretary could tell anything of the whereabouts of the Accountant.

The Secretary stated that the Accountant was abroad and had had another operation to his eye which was successful. He was expected to resume his duties shortly.

Resolutions.

(a) *Mr. McKay re Giant Plantain Nursery in Clarendon.*—Mr. McKay moved the following resolution:—

"That the Secretary of the Jamaica Agricultural Society be instructed to procure a bit of land in Upper Clarendon from a landed proprietor not less than quarter of an acre to establish a nursery of giant plantains and that a sum of £10 be voted for this venture, the Secretary to advise the Board of Management how the money can be procured.

Mr. McKay said he hoped the Board would pass the resolution and asked the Secretary to finance the project.

Major Moxsy seconded the resolution and stated that if land on his property was considered suitable for the nursery he would be willing to put it at the disposal of the Society in which case the cost of the project would be reduced.

The resolution was carried Major Moxsy thanked for his offer, and the Secretary directed to make use of Major Moxsy's offer.

Communications.—

(a) *Letter from St. Thomas Parochial Board re Scheme for fostering civic pride.*—The following letter was submitted:—

16th September, 1935.

No. 722.

Sir,

I am instructed by the Parochial Board of Saint Thomas to state that the matter of the fostering of civic pride among the inhabitants of this parish is engaging the attention of this Board and the sum of £10 has been approved (pending sanction of His Excellency the Governor) to be distributed in prizes among the people with a view to encouraging them in enhancing the appearance of their homes, such as having well-kept flower gardens, etc.

The Board feels that your Society has the machinery to be better able to carry through the scheme (through your Agricultural Instructors and Branch Agricultural Societies, &c., in the parish) and I am to ask if your Society would be willing to accept the amount of £10 for the purpose.

I am to attach copy of a letter being forwarded to the Honourable Colonial Secretary in the matter.

(Sgd.) C. E. Harty,
Acting Clerk Parochial Board.

It was decided that the request of the Parochial Board be granted and a Committee consisting of the Secretary, the Supervisor, the Agricultural Instructor for the parish and representatives from the Parochial Board be deputed to deal with the matter.

(b) *Invitation from Baxter's Mtn. Branch for Secretary to visit Branch* 15.10.35.—Letter from the Baxter's Mtn. Branch was submitted, and the Board approved of the Secretary making the visit if he could conveniently do so.

(c) *Letter from C.S.O. re appointment of a Secretary for Committee on Agricultural Loan Society.*—Letter No. 630/35 dated 17th September, 1935, from the C.S.O. was presented, stating that it was found that the services of the Secretary of the Society would not be required as Secretary of the Committee appointed to enquire into and report on the possible extension of the activities of the Agricultural Loan Society, as was formerly indicated.

The letter was noted.

Reports from Committees.—

(a) *Agricultural Produce Law.*—The following report was submitted:

18th September, 1935.

To the Board of Management:—

Gentlemen:

Your Committee met on the 18th September to consider our report dated the 27th August, 1935, which was recommitted to the Committee by the Board.

We feel that our recommendations as outlined in the report referred to, are well considered and will be of benefit to the Produce Industries and the only means we can think of to curb the various abuses which it was the object of this Committee to find means for controlling.

(Sgd.) U. THEO. McKAY, Chairman.
(Sgd.) GLAISTER BAXTER, Secretary.

Mr. McKay moved the adoption of the report.

This was seconded by Mr. Phillips.

Mr. Burke said he was in agreement with the report being adopted with the exception of the clause which introduced additional taxation. While he was in agreement with registration he was thoroughly against taxation.

Mr. Cover supported Mr. Burke's contention.

Mr. McKay pointed out that the 4/- and 2/- mentioned should hardly be looked upon as additional taxation. These amounts were considered as only enough to cover the expenses that would be incurred by Government for registration of the vehicles. The Committee had gone very carefully into the question from all angles and had decided that these proposals as set out in the report embodied the solution of the need for control of unlicensed buyers of produce and the praedial larceny so continually complained of. He asked Messrs. Burke and Cover to withdraw their objection.

The motion for the adoption of the report was then put to the meeting and carried, Messrs. Burke and Cover declining to vote.

(a) *Staple and Minor Produce.*—The Secretary read the following:—

September 23rd, 1935.

To the Board of Management:

Gentlemen:

Your Staple and Minor Products Committee held two meetings and considered various matters referred to them by the Board. The following recommendations were made:

1. That consideration regarding the erecting of a dehydrating plant for grain be postponed in view of the fact that private enterprise is now engaged in erecting such a plant and has given assurance that the minimum price to be paid for corn will be 4/- per bushel Kingston.

2. No recommendations can yet be made regarding the protection of Red Peas as the question is still being examined.

3. That the idea outlined in Mr. S. C. Lindo's letter—co-operative marketing of minor products—should be given further consideration and that a Committee appointed by the Board shoud go into the matter.

4. That as a means of building up the Cassava Industry, two or more varietal plots be established on the lines of the scheme outlined, which is herewith attached.

5. That the cassava project, if adopted by the Board, should be submitted to the Department of Science and Agriculture and the Hon. Cononial Secretary, and that a special request be made to the Government for the amount necessary to run these plots and that the co-operation of the Department of Science and Agrculture be solicited in the matter.

(Sgd.) GLAISTER BAXTER,
Secretary.

Outline of Scheme for Varietal Cassava Plots.

1. Cultivated area to be 1 acre.
2. One plot to be situated in the red dirt area adjacent to Guanaboa Vale; one plot to be situated in the St. Elizabeth cassava area.
3. A 1 acre plot to be divided into 40 quarter square plots.
4. Five of the best yielding available varieties should be collected for trial.
5. Tubers of these varieties should be analysed for starch content.

for planting in the manner customary by the peasantry in the area; the other half should be properly forked or ploughed and furrowed.

7. The plants should be set out in the following manner, which will afford replication, and a suitable fertilizer should be applied to half the plots. Suggested scheme of planting outlined below:—

Sub-Plots A	1	Variety	1 Fertilized	Sub-Plots B	1	Variety	1 F.
	2	"	1 Unfertilized		2	"	1 U
	3	"	2 F.		3	"	2 F.
	4	"	2 U.		4	"	2 U.
	5	"	3 F.		5	"	3 F.
	6	"	3 U.		6	"	3 U.
	7	"	4 F.		7	"	4 F.
	8	"	4 U.		8	"	4 U.
	9	"	5 F.		9	"	5 F.
	10	"	5 U.		10	"	5 U.
	11	"	1 F.		11	"	1 F.
	12	"	1 U.		12	"	1 U.
	13	"	2 F.		13	"	2 F.
	14	"	2 U.		14	"	2 U.
	15	"	3 F.		15	"	3 F.
	16	"	3 U.		16	"	3 U.
	17	"	4 F.		17	"	4 F.
	18	"	4 U.		18	"	4 U.
	19	"	5 F		19	"	5 F.
	20	"	5 U.		20	"	5 U.

The usual cleaning would be uniformly carried on over the entire experiment and the time of harvesting records of weight and of production should be carefully taken and an analysis of the starch content of tubers made and recorded by the Department of Sciene and Agriculture.

I estimate the cost as follows:—

Cost of 1 acre.

	£	s.	d.
Clearing of land—1 a.	1	10	0
Preparing for planting—			
½ a. customary method	1	0	0
½ a. ploughing and forking ..	0	10	0
Plants	1	10	0
Planting	0	10	0
Fertilizing	1	10	0
Cleaning	1	10	0
Harvesting	1	0	0
Other Items	1	0	0
	£10	0	0

The report was adopted and the matter of the co-operative marketing of minor products was referred to the Staple and Minor Products Committee for recommendations to the Board.

Mr. Phillips left the meeting.

On the motion of the Chairman, seconded by Mr. Cover, the standing orders were suspended to admit the consideration of the reports of the Committees that sat that morning, and reports from the following Committees were submitted.

(i) *Instructors Committee* as follows:—

2nd October, 1935.

To the Board of Management:

Gentlemen:

Your Instructors' Committee met this morning and beg to recommend the following:—

1. That with regard to the Mosaic Disease Law of Sugar Cane (1925), the Committee recommends to the Board that the Director of Agriculture be asked not to enforce the Law in areas that are not primarily sugar producing areas.

2. That an Agricultural Headman be appointed in connection with work in vegetable culture on the Liguanea Plains, and that two men be appointed in the Llandewey District of St. Thomas to assist in cutting back mango trees so as to have the area in readiness for extensive budding work next spring.

3. That Instructor Virtue be granted 4 weeks leave from the 15th inst.

(Sgd.) GLAISTER BAXTER,
Secretary.

On the motion of Mr. McKay, seconded by the Chairman, the report was adopted.

(ii) *Live Stock Committee*:—The following was submitted:—

Kingston,
2nd October, 1935.

To the Board of Management:
Gentlemen:

Your Live Stock Committee met this morning and discussed the revision of the Small Stock Subsidy Regulations. The Committee recommends that the matter be held over and a date fixed for a meeting of the Live Stock Committee, when the whole question will be gone into and a full report made to the Board of Management.

(Sgd.) GLAISTER BAXTER.

Secretary.

This was agreed to.

Diseases of Plants and Animals: Insect Pests.—

(a) *Panama Disease of Bananas: Report for August.*—The Secretary stated that this report was not yet to hand.

(b) *Letter from C.S.O., re Order under Section 3 of Law* 9 *of* 1918 (*re Bees.*)—The Secretary presented letter No. 4098/35 of date 23rd September, 1935, covering copy of an Order made by the Governor under Section 3 of Law 9 of 1918, "The Protection from Disease (Bees) Law 1918."

The Secretary was directed to give publicity to the Order.

Office.—

(a) *Secretary's Report on travelling* done during the month of September, was submitted and noted.

Tree Planting.—

(a) *Report by Mr. Hanson.*—The Secretary placed on the table report on tree planting in St. Andrew submitted by Mr. Hanson, and stated that a copy had been forwarded to the Colonial Secretary for the information of the Governor.

(b) *Letter from C.S.O.*—The following was read:—

19th September, 1935.

No. 863/32.

"I have the honour to acknowledge the receipt of and to thank you for your letter No.147 of the 7th September, 1935, forwarding a report by Mr. A. P. Hanson, Agricultural Instructor, on the subject of tree planting in St. Andrew.

2. The Surveyor General has been asked to co-operate with Mr. Hanson in the distribution of seedlings and to give all assistance possible and Mr. Hanson should get into communication with that Officer.

3. With reference to paragraph 7 of Mr. Hanson's report I should be glad to learn whether your Society recommend that Bullet Wood and Sweet Tamarind should be added to the Schedule to Law 17 of 1929. I should also be glad if you would state whether the Society consider that the Law has had the desired effect in preventing the barking of trees scheduled and whether it desires to make any recommendations for the stricter enforcement of the provisions of the Law.

4. I should be glad to learn whether it is thought that posters, inviting attention to the provisions of the Law exhibited in districts where barking is prevalent would have any effect.

(Sgd.) A. R. DIGNUM,
for Colonial Secretary.

On the suggestion of Mr. Burke it was agreed to refer the matter to Major Moxsy, the Secretary and Mr. Hanson for report.

Mr. Cover asked that the Instructors be directed to make distributions of seedlings in other parts of the country.

Industries.

(a) *Cotton—Correspondence from Supervisor Bacquie.*—The Secretary submitted letter from Instructor Bacquie covering correspondence relative to the growing of cotton in South Manchester.

The Secretary was directed to refer the matter to the Department of Agriculture.

New Members.—

On the motion of Mr. Cover, seconded by Major Moxsy, the following were elected to be members of the Society:—

W. D. Stavert, 10 Duke Street, Kingston.

R. S. Evans, c/o Canadian General Insurance Coy., 208 Federal Building, Toronto, Ontario, Canada.

J. Linton Richardson, 65 Waltham Park Road, Halfway Tree.

Arthur Mapp, Boston Farm, Belize, British Honduras.

Other Business.—

(a) *Small Stock Subsidy: Letter from Instructor J. A. Graham re Buck for Spaldings Branch.*—In the letter submitted, Instructor Graham recommended that the Spaldings Branch be supplied with a Buck under the Rules governing the Small Stock Subsidy.

This was agreed to.

Mr. McKay asked that a list of the animals subsidized to date and a report of their activities be placed before the Board.

The Secretary stated that the Live Stock Committee had before them the consideration of the whole question of subsidies and a report would shortly be before the Board.

(b) *Letter from Instructor Shirley re invitation to His Excellency to attend meeting of Clarendon Branches Associated* 15.11.35.—The Secretary placed before the Board letter from Instructor Shirley stating that at a meeting of the Clarendon Branches Associated it was decided to invite His Excellency the Governor as President of the Society, to attend the next Half-Yearly Meeting of the Clarendon Branches Associated and present the Cups won at the last All-Island Show to the winners. It was also proposed to have exhibits of Agricultural Produce at the meeting for His Excellency's inspection as well as being of general interest.

This was noted.

(c) *Invitation to Secretary to attend Inaugural Meeting of proposed Branch Society at Brixton Hill (Clarendon).*—Letter from the Secretary of the proposed Branch of the Society at Brixton Hill was submitted requesting the Secretary to attend their inaugural meeting.

The Board authorised the Secretary to do this if possible.

(d) *Letter from Mr. Hanson re new appointmnt.*—Letter from Mr. Hanson was submitted, accepting the appointment as Acting Supervisor of the Eastern Division of the Island as from the 1st October, 1935, and conveying his thanks to the Board.

This was noted.

Mr. McDaniel returned to the meeting.

(e) *Letter from Rev. R. Webb re Show at Palmers Park and services of Instructors.*—Letter from Rev. R. Webb was submitted, stating that he was arranging for a Fair, Sports and Agricultural Show to be held on the 7th November in aid of the St. Mary's Parish Church, and asking that Instructors Coke and Jones be permitted to co-operate in the organization of the Agricultural Show.

The necessary permission was granted.

(f) *Application from Marlie Hill Juvenile Branch for grant re Vegetable and Peanut Competitions.*—Letter from the Secretary of the Marlie Hill Branch in St. Catherine was submitted, requesting that a grant be made towards the prizes for the 1935 Juvenile Vegetable Competition and their Peanut Growing Competition. It further stated that there had been 54 entries in the Vegetable Competition and 7 in the Peanut Competition.

A grant of One Guinea was authorised.

(ii) *Audit of Accounts.*—Memo from the Seeretary was submitted stating that the accounts of the Society had been audited to 31st August, 1935, and the Auditor had requested him to get ratification from the Board for the advances he had made to officers of the Society against their salaries for current months.

He had also entrusted £30 as Imprest to the Accountant for the purchase of a Graflex Camera in America for Journal purposes, which amount was covered by the vote for Office Equipment.

The action of the Secretary was ratified.

The matter of further advances was considered and the Board decided that they would not give authority to the Secretary to make any further advances in the future.

(h) *Resolution from Branches. (i) Brittonville re Woodpeckers.*—This resolution requested that Woodpeckers should be removed from the list of protected birds and stated that these birds destroyed cocoa and fowls' eggs.

The request was not entertained.

(ii) *Mearnsville re Larceny of Small Stock.*—This resolution asked that the Government be approached requesting that the Schedule regarding Authorised Persons be amended to include goats, pigs, fowls and honey.

The request was not granted.

(iii) *Mearnsville re Telephone and Births and Deaths Registration Office at Cave P.O.*—The Branch requested that representations be made to the Government as to the necessity for the establishment of a Telephone and Births and Deaths Registration Offices at the Cave Post Office.

The Secretary was direeted to make enquiries regarding the matter and to deal further with the resolution.

(iv) *Mearnsville re Loan and Agricultural Development.*—This resolution requested that the Society urge on the Government the desirability of applying not less than 50% of the loan the Government proposed to raise to the development of the agricultural resources of the Colony.

The Secretary was directed to deal with this.

(v) *Keynsham re Roads (2 resolutions).*

(vi) *Keynsham re Railway Siding at Duck Pond.*

(vii) *Keynsham re Finger Post at St. Paul's.*

The Secretary was directed to make enquiries regarding these matters and deal further with the resolutions.

The meeting then adjourned to Wednesday, 6th November, 1935, at 11.30 a.m.

BOARD OF MANAGEMENT.

A Special Meeting of the Board of Management of the Jamaica Agricultural Society was held at the office of the Society, 11 North Parade, Kingston, on Wednesday the 16th October, 1935, at 2 p.m.

There were present: Rev. W. J. Thompson, Second Vice-President in the chair, Mr. W. L. Barnett, Acting Director of Agriculture (*ex officio,*) Messrs. Sidney Barton, R. A. Burke, T. P. V. McDaniel, W. H. Watson, S. M. Walker, D. T. Wint and Major Moxsy; Mr. P. St. L. Bacquie, Supervisor of Instructors and the Secretary Glaister Baxter. Mr. U. Theo. McKay, Third Vice-President attended shortly after the meeting began.

The Secretary read the notice convening the meeting, and the Agenda as follows:—

Bee Industry:—

Letter from C.S.O. of 7.9.35 *re employment of a suitable person to combined positions of Bee Instructor and Bee Inspector.*

Letter from C.S.O. of 30.9.35 *on the same subject.*

The Secretary also read letter from Messrs. Manton & Hart with their opinion that the resolution of the Half-Yearly meeting regarding termination of employment of staff was not at that time effective.

At the request of Mr. Wint the Chairman asked the Secretary to give for the benefit of the new members who were elected to the Board in July, a resumé of the history of the proceedings of the Board in regard to the Bee Industry Subvention, the control of Foul Brood Disease and the proposal to employ one person who could suitably combine the positions of Bee Instructor and Bee Inspector.

The Secretary stated that sometime in September, 1934 he was advised by the then Chairman of the Bee Industry Committee that there was a serious disease of bees at the Hylory apiary and he was asked if he had any knowledge of it and if he had taken any action, to which he had replied that it was the first time he had had such information. Along with Mr. Sangster the then Chairman of the Bee Industry Committee, he visited the Hylory apiary when Mr. Coote stated that Pickled Brood disease was present in a colony in the apiary. In view of the fact that he had shortly before this outbreak introduced an imported queen into the colony he had destroyed the hive containing that queen by burning it. In consequence of this occurrence a Bee Industry meeting was called at which Mr. Coote attended. He was censured for his negligence in not having reported the outbreak of the disease and the trouble in the apiary, to the office.

Incidentally publicity was given to this matter and warnings were issued and articles instructing the correct procedure in the event of suspicious cases were published in the Daily Press and in the Journal.

In October of the same year Mr. Coote discovered Foul Brood disease in an apiary in St. Andrew. The Director of Agriculture and the Bee Industry Committee met in conference and decided that the law in respect to this disease should be put into operation. It was decided that Mr. Coote along with two others should be appointed as Authorised Persons under the Bee Diseases Law. In November Foul Brood was discovered in the Hylroy apiary and reported.

In the course of the enforcement of the law a case was brought in Court against a Beekeeper. On account of some technicality the Beekeeper was not convicted. The Director of Agriculture then reported to the Board that the Bee Instructor having stated in Court that he was aware of the existence of Foul Brood Disease in the Hylroy apiary in September, he (the Director of Agriculture) had

no confidence in this officer and therefore had to advise the Governor *to remove his name from the list of Authorised Persons under the* Bee Disease Law. In view of the representations and complaints of the Director of Agriculture, the Board requested the Bee Industry Committee to hold an enquiry and report to them. The enquiry was duly held, evidence taken from persons connected with the Beekeeping Industry, and as a result of the enquiry a report which was not altogether unanimous, was submitted to the Board. As a result of this report which was discussed at an afternoon session when there were six members present, it was moved and seconded that the services of the Bee Instructor should be terminated. Two members voted in favour of the motion, one voted against it, one declined to vote and two did not register their votes. The Secretary was directed to carry out the decision of the Board according to the regulations and the Bee Instructor was given one month's notice to terminate his services with the Society. The Board was notified through the Bee Instructor's Solicitors that the notice was considered unlawful.

A public meeting was held on the subject of the Instructor's dismissal and as a result of that meeting held at the Collegiate Hall a deputation was appointed and with the permission of the Board waited on the Board. As a result of the representation of the deputation the Board rescinded the dismissal and reinstated the Bee Instructor.

The rest of the proceedings took place since the new Board was elected.

The Secretary further stated that it was at the request of the Director of Agriculture that the Bee Instructor had been appointed to the position of Bee Inspector under the Law.

The Secretary at the request of the meeting then read the letters listed on the Agenda.

During the discussion which followed it was stated that the Bee Instructor received no additional salary for the additional position to which he was appointed. This additional appointment was in direct conflict with the declared policy of the Society that the work performed by their Officers should be missionary work. The Central Government was entirely responsible for the control of diseases. That positions such as the one under consideration made it difficult for the Board to function for the best interests of the Island as it was their desire to do. That although the Governor on the advice of the Department of Agriculture had struck the Bee Instructor's name from the list of Authorised Persons under the Bee Disease Law that did not warrant the Society dispensing with the services of the Officer as Bee Instructor he having over a period of years rendered satisfactory services in this capacity.

During the discussion Mr. Thompson left the meeting but said he was against dismissing the Bee Instructor. The chair was then taken by Mr. McKay, Third Vice-President.

The following resolution was moved by Mr. Burke and seconded by Major Moxsy:—

"*Resolved that the Board of Management of the Jamaica Agricultural* Society regrets that it cannot agree to the principle of the present position of Bee Instructor being combined with Bee Inspector and that *the Government be so informed.*"

The resolution was put to the vote and carried, Messrs. Barton, Burke, Watson, Wint, McDaniel and Major Moxsy voting in favour

and Mr. McKay against it. The Acting Director of Agriculture and Mr. S. M. Walker did not vote.

The Secretary was directed to write to the Government in the terms of the decision of the Board.

The meeting then adjourned.

BOARD OF MANAGEMENT.

The regular monthly meeting of the Board of Management of the Jamaica Agricultural Society was held at the office of the Society, 11 North Parade, Kingston, on Wednesday the 6th November, 1935, at 11.30 a.m. There were present: Mr. T. J. Cawley, Chairman, and Rev. W. J. Thompson and Mr. U. Theo. McKay, Vice-Presidents, Mr. W. L. Barnett, Acting Director of Agriculture (*ex officio*), Major A. R. Moxsy, Messrs. R. A. Burke, C. O. Cover, T. P. V. McDaniel, D. D. Phillips and D. T. Wint; Messrs. P. St. L. Bacquie and A. P. Hanson, Supervisors of Instructors and the Secretary, Glaister Baxter.

Rev. W. J. Thompson on behalf of the Board, extended a hearty welcome to Mr. Cawley, the First Vice-President, on his return from his trip abroad and expressed the wish that he had benefitted by the holiday.

This was seconded by Major Moxsy.

The Chairman replied thanking the members for their kind expressions.

Confirmation of Minutes of regular meeting held 2.10.35, and Special meeting held 16.10.35.—

Copies of the minutes of both these meetings have been sent to the members of the Board, they were taken as read, and on the motion of Major Moxsy, seconded by the Chairman, they were confirmed.

Matters arising out of the Minutes.—

(a) *Statement by Secretary* was submitted as follows:—

5th November, 1935.

To the Board of Management:

Gentlemen—

With reference to the resolution for the establishment of a Giant Plantain nursery in Clarendon, I have inspected a plot of land at Suttons, kindly provided by Major A. R. Moxsy for the purpose of the nursery, and have approved same and secured 100 suckers from the Department of Agriculture for the starting off of the plot.

The necessary instructions have been issued to the Agricultural Instructor for the area.

The Agricultural Headman for the Liguanea took up his duties on the 21st October last.

The Agricultural Instructors have been requested to make distributions of timber seedlings for the purposes of afforestation and the production of valuable economic woods and to report at half-yearly periods ending 31st March and 30th September on progress and results.

All other correspondence consequent on the deliberations of the Board at their last two meetings have been carried out.

(Sgd.) Glaister Baxter,
Secretary.

(b) *Storage accommodation and modifications of present buildings—Letter from C.S.O.*—The Secretary read the following:—

No. 5416/34.

25th October, 1935.

"I am directed to acknowledge the receipt of your letter No. 166 of the 12th October, 1935, and to transmit herewith for your information a sketch which has been prepared by the Public Works Department showing tentatively the schemes outlined by the Governor in regard to the proposed alterations and additions to the premises at No. 10 North Parade, Kingston.

2. The estimated cost of the work is	£1,580	itemized as follows:—
Exhibition Sheds	840	
New Boundary Walls, etc.	325	
Levelling site	25	
Demolishing existing buildings	50	
Asphalting Court Yard	200	
Alterations to Office accommodation	140	
	£1,580	

3. The Government will be glad if your Society will give this matter consideration and furnish its observations in due course."

(Sgd.) A. R. Dignum,
for Colonial Secretary.

Mr. Cover asked in what respects the proposals made by the Governor differed from the proposals made by the Board.

The Secretary stated that the most important difference was that the Board proposed putting in steel sheds for increased storage capacity, whereas the present plans submitted proposed wooden sheds suitable for the purposes of exhibiting and marketing products.

At the request of Mr. Cover the Secretary read a former letter from the Colonial Secretary as follows:—

No. 5416/34. 10th October, 1935.

"With reference to your letter No. 150 of the 9th September, 1935, in regard to the proposed alterations and additions to the premises at No. 10 North Parade, Kingston, I have the honour to refer you to the suggestions made by the Governor on the occasion of His Excellency's visit to the offices of your Society on the 18th September, 1935.

2. It was suggested that the yard should be cleared and the present shed pulled down leaving the court yard as a central exchange and mart to which people could come to sell local vegetables and procure new seeds or free samples. The Public Works Department have been instructed to draw up a plan on these lines.

3. As regards the question of a railway it was suggested that there should be a runway or trolley on a line.

4. The present storage accommodation which is inadequate for the purpose should be enlarged so that orders can be booked for goods to be supplied in quantity.

5. The ground should be roughly levelled and asphalted over, lightly, and there might be a pavement running round past the stalls.

6. The omission to reply to your letter before is regretted."

(Sgd.) F. Brown.
for Colonial Secretary.

Major Moxsy suggested that it should be decided whether the Society was willing to abandon its Seeds Department, in which case the increased storage accommodation would be unnecessary, or continue their policy of assisting as much as possible with the disposal to the best advantage of the products which they had encouraged settlers to produce in increasing quantities, in which case the increased storage accommodation would be very necessary.

The discussion which followed disclosed that the proposals submitted by the Board was the result of the consideration (1) of the requirements of the people as expressed by resolutions from Branches in different sections of the Island presented to the Board over a number of years; (ii) the results of observations resulting in one instance in the expression

of such opinion in the Legislative Council some five years ago by Mr. D. T. Wint, the then member for St. Ann, that the Agricultural Society should look after this phase of agriculture—assistance in the disposal of the products of the small man who could not afford to store it. (iii) That the trading carried on by the Society was up to the present time helpful to the people who required seeds for planting, and was necessary to the Society, and that the lines of development on which the Board had been working were proving successful and should be pursued.

It was pointed out that the difference in cost between the scheme proposed by the Government and that proposed by the Board was that the latter was £20 in excess of the former.

On the suggestion of the Rev. Mr. Thompson it was decided that a letter should be forwarded to the Governor stating that the Board had had this matter under consideration for a considerable time and that they knew the requirements of the peasant population of this country and the plans submitted were the embodiment of the requirements of the people who would benefit through the improved accommodation, and the Board was therefore asking that their scheme as originally outlined be adhered to.

Letter from C.S.O. re report on Agricultural Loan Societies Board.— The Secretary read the following:—

No. 6037/35. 30th September, 1935.

Sir,

With reference to the correspondence ending with your letter No. 157 of the 19th September, 1935, I am directed to transmit herewith a copy of the report of the Committee appointed by the Governor on the 3rd July, 1933, to enquire into and report on the advisability of the extension of the scope of the Agricultural Loan Societies Board, and to state that the Government would be glad to learn the views of your Society with regard to the recommendations contained therein.

(Sgd.) A. R. Dignum,
per Colonial Secretary.

The Chairman stated that this matter was of great importance, and he understood copies of the report had been sent to the members of the Board and he thought if possible the matter should be dealt with immediately.

As certain of the members said that the report had reached their hands too late for careful consideration, it was decided that a Special Meeting of the Board should be held on Wednesday the 20th November, at 10 a.m. when this matter would be dealt with.

(c) *Cotton—Letter from Acting Director of Agriculture.*—The Secretary read the following:—

Hope, Kingston.
Nos. C.F. 306. 28th October, 1935.

With reference to your letter No. 415 of the 17th October, on the subject of cotton growing, I have to inform you that I have looked into the matter of cotton growing in Jamaica.

2. Although there is no doubt that good cotton can be grown in small amounts in various parts of Jamaica, yet experience shows that efforts in the past to grow cotton on a large scale have always met with disaster.

The Secretary was directed to thank Mr. Barnett for the communication.

It was decided that under the circumstances the Society would not be prepared to advocate the growing of cotton in Jamaica.

(d) *Cassava Varietal Plots—Letter from Acting Director of Agriculture.* —The following letter was submitted:—

No. CF. 305

Hope, Kingston P.O.
28th October, 1935.

"With reference to your letter dated 17th October, on the subject of Cassava Varietal Plots, I have to inform you that I consider your scheme to be a useful one. I consider that much more could be done in Jamaica in the way of developing Cassava growing.

2. Cassava starch is highly esteemed abroad for laundry purposes. As a food the starch is very easy to digest and the preparation of tapioca from Cassava starch should, in my opinion, be encouraged.

3. The use of Cassareep, which is derived from the cassava, and which forms a basis for the manufacture of sauces and condiments, should also be more widely known.

4. There are a large number of food preparations of the nature of breakfast foods which can profitably be made from a combination of cassava and banana, and I consider that the manufacture of such needs every encouragement.

5. The yields of cassava roots vary considerably, and your proposed investigation into yields and qualities from different varieties of cassavas should be extremely useful. I shall be pleased to see that specimens and tubers obtained in such trials are analysed at the Government Laboratory."

(Sgd.) W. L. BARNETT,
Actg. Director of Agriculture.

It was decided that the Acting Director of Agriculture be thanked for the letter and the matter should be referred to the Staple and Minor Products Committee for their further consideration and recommendation.

(e) *Letter from Acting Director of Agriculture re Mosaic Disease Regulations.*—The Secretary placed on the table Letter No. CF. 191 of date 18th October, 1935, and stated that the matter had been dealt with by the Instructors Committee that morning.

Statement of Accounts.—

(a) *Statement for September.*—The Secretary said that this appeared in the minutes.

(b) Statement for October was submitted as follows:—

STATEMENT OF ACCOUNTS FOR OCTOBER, 1935.

Receipts.	Estimates. £	s.	d.	Total. £	s.	d.
To Subscriptions	175	0	0	129	19	3
Affiliation and Journal Fees ..	175	0	0	181	9	7
Advertisements in the Journal ..	350	0	0	81	13	0
Miscellaneous	10	0	0	12	15	1
Bee Industry Sales	30	0	0	14	14	3
Sales Department Profits (1935-36) ..	400	0	0	..		
Government Grant	9,500	0	0	5,541	13	4
Grant for Beekeeping Industry ..	500	0	0	227	3	7
Appropriation from Sales Department Surplus	657	5	0	..		
	£11,797	5	0	£6,189	8	1
Balance from 31st March, 1935 ..	..			781	7	7
Agricultural Shows:—Deposits ..	..			45	15	0
Citrus Competition Shilling Fund ..	..			22	19	0
Jubilee Memorial Fund	..			23	5	6
Refunds of Travelling Advances ..	..			27	18	6
Special Grant from Government for Fertilizer Experiments and encouragement of Juvenile Branches	..			35	0	0
Seeds Trading Account . ..	..			2,604	6	6
				£9,730	10	2
Less Expenditure per contra ..	..			9,364	12	0
Balance ..	..			£365	8	2
Cash in hand	55	3	7			
Cash at Barclay's Bank	24	1	1			
Cash at Royal Bank of Canada ..	286	3	6	365	8	2

Expenditure.	Estimates. £	s.	d.	Total. £	s.	d.
By Personal Emoluments:						
Secretary and Office Staff ..	2,117	5	0	1,297	0	5
Instructors and Supervisors ..	7,671	0	0	4,472	19	4
Instructors Course at Hope ..	125	0	0	71	19	2
Instructors Contingencies ..	75	0	0	69	17	1
Secretary's, Office and Special Travelling	100	0	0	82	17	3
Printing and Stationery	100	0	0	69	5	11
Printing and issuing Journals and Reports	800	0	0	176	1	9
Rent and Rates	58	0	0	33	18	1
Rent of Telephones	27	0	0	15	8	0
Postages and Telegrams	10	0	0	6	16	10
Office Equipment Repairs ..	15	0	0	0	10	9
Incidentals	50	0	0	33	14	4
Auditor's Fees	25	0	0	25	0	0
Library Books	10	0	0	4	3	10
Show Equipment, Repairs ..	10	0	0	5	6	1
Experiments, Bombay Mango Extension, etc.	100	0	0	38	6	3
New Office Equipment	40	0	0	5	1	0
	£11,333	5	0	£6,408	6	3
Beekeeping Industry	500	0	0	311	7	11
	£11,833	5	0	£6,719	14	2
Agricultural Shows, Printing, etc. ..	..			22	3	0
Plant Disease Control	..			1	4	8
Citrus Budwood	..			10	9	11
Local Competitions	..			3	16	6
Travelling Advances, Instructors ..	..			322	10	0
New Show Equipment	..			38	7	0
Jubilee Memorial Fund	..			20	[illegible]1	9
Seed Distribution Advances ..	..			34	7	1
Seeds Trading Account	..			2,191	17	11
				£9,364	12	0

(Sgd.) GLAISTER BAXTER,
Secretary and Treasurer.

(Sgd.) DONALD MACDONALD,
Accountant.

Estimates.—

The Chairman suggested that consideration of the Estimates be deferred to the Special Meeting arranged for the 20th November.

This was unanimously agreed to and the Secretary directed to send advanced copies of the proposals to the members of the Board.

Questions.—

Mr. McDaniel asked if the Secretary had been advised of a disease of citrus which had occurred in St. Catherine, if so had he reported it to the Department of Science and Agriculture and received any reply, and if so what reply.

The Secretary stated that Instructor Byles had reported a disease of citrus and submitted specimens. He, the Secretary had immediately submitted these specimens to the Government Microbiologist, who visited the area. He had accompanied the Microbiologist who had diagnosed the disease as Anthracnose resultant from the physiological condition of the plant. He had advised Mr. Byles to get the land condition of the area improved and suggested certain experimental treatment.

Mr. Phillips observed that from the symptoms described to him the disease was not a new one. It had occurred in Manchester and had been successfully treated.

The Acting Director of Agriculture confirmed Mr. Phillips' observation and stated that the Department of Agriculture was making investigations and a pronouncement would shortly be made.

The Secretary read the questions submitted by Mr. McKay and the answers thereto as follows:—

Question 1.—What is the total amount given to the J.A.S. by the Central Government to provide seeds for distribution among the settlers in and around Alligator Pond and when was the amount received?

Answer.—The Central Government has authorised an expenditure of £50 to provide seeds for distribution in Southern Manchester and Southern St. Elizabeth. The amount has not yet been received but a bill will be rendered to the Hon. Colonial Secretary and collected.

Question 2.—What kind of seeds have been procured, the quantity and cost of each.

Answer.—47 bushels seeds corn £16 16s. 0d. 24 bushels peas—£14 8s. 0d. 87½ bundles potato slips £3 8s. 9d. 118 bundles cassava sticks—£4 8s. 6d.

Question 3.—Has there been any charge or charges against the amount for distribution, such as transportation, storage, travelling, supervision, and if any, give the amounts so spent under separate heads.

Answer.—Transportation costs amounted to £9 7s. 3½d. and containers 9s. 6d. There have been no charges for storage, travelling or supervision.

Question 4.—How much seeds have been distributed? Give the names of the persons, the quantities to each and the dates of distribution.

Answer.—All the seeds have been distributed. I lay on the table a list of the names of the recipients.

Question 5.—What benefits if any have flowed from this activity and expenditure and what steps, if any, have been taken to ensure that beneficial results would be the consequence of this expenditure"

Answer.—The distribution has only recently been completed on account of weather conditions and the results cannot yet be advised.

Resolutions.—

(a) *Mr. McKay re method of paying outdoor staff.*—Mr. McKay moved the following resolution:—

"Resolved:—That the General Secretary of the Jamaica Agricultural Society be empowered to pay the outdoor staff of the Society their salaries fortnightly and in such a way that the payments reach them not later than the 14th day of each month."

Mr. McKay said the object of the resolution was to facilitate the Instructors who had in the past applied for advances against their salaries. At the last meeting of the Board, the Board decided against making such advances and he thought the adoption of his proposal would help the situation.

The question of the change of status of the Instructors consequent on the adoption of this method of paying them was raised.

After discussion the resolution was put to the vote and lost, three members voting in favour of and four against it.

(b) *Mr. Burke re change of Regulation governing termination of employment of staff.*—Mr. Burke moved the following:—

"Resolved:—That Paragraph 1 of the Regulations governing Office and Field Staff be struck out and the following substituted therefor: The Officers of the J.A.S. may be dismissed by the Board of Management at any time on giving such employee, if they be paid monthly, three months' notice or three months' pay in lieu of notice (2) If they are paid weekly two weeks' notice or two weeks' pay in lieu of notice.

That the following Regulation be added to the existing Regulations governing Office and Field Staff. Paragraph 8. The Board of Management have power to suspend an Officer on half pay, pending an investigation, in the event of a prima facie case being made out to the Board against any Officer for misconduct, incompetence or deliberate neglect of duty.

Such Officer to be furnished with a copy of the charge or charges against him at least seven clear days before the investigation:

Such Officer to be allowed to call witness or witnesses to appear before the Board of Management to testify on his behalf:

The Officer, with the permission of the Board, to be legally represented at his own expense:

The Board of Management informing the Officer some reasonable time after the investigation of the majority decision of the Board.

The Chairman seconded the resolution for discussion and said that it sought to amend a resolution which was passed at the last Half-Yearly General Meeting.

On request, the Secretary read the resolution referred to by the Chairman passed at the Half-Yearly Meeting.

After some discussion it was decided to defer further consideration of the resolution to the next regular meeting of the Board.

The meeting then adjourned for luncheon.

On the resumption there were present, Mr. Cawley in the chair, Messrs. McKay and Wint and Major Moxsy; Messrs. Bacquie and Hanson, Supervisors of Instructors, and Glaister Baxter, Secretary.

Mr. McKay moved that they proceed with the consideration of matters on the Agenda and ask for confirmation when there was a quorum.

This was seconded by the Chairman and carried.

Communications.

(a) *Resignation from Instructor Martin.*—The Secretary stated that during October be had received a letter from Instructor Martin asking the Board to waive the usual notice and permit him to terminate his services with the Society at the end of the month. He, the Secretary, had consulted with the Second Vice-President in the absence of the First Vice-President abroad, and obtained the necessary permission which he had conveyed to Mr. Martin.

He had since received a letter from Mr. Martin expressing his thanks to the Board for this favour as also for their courteous treatment extended to him during his 15½ years service in the Society.

This was noted.

(b) *Letter from Acting Director of Agriculture covering £35 for Fertilizer Demonstrations and Encouragement of Juvenile Branches.—Letter No.* C.F. 47 *of date October 11th 1935, from* Mr. Barnett, *Acting Director* of Agriculture was presented and noted, and the Secretary directed to thank Mr. Barnett for the communication.

(c) *Memo from Supervisor Bacquie re testimonials from Instructors.*—Memo from Supervisor Bacquie was presented stating that an Instructor in his area had asked his advice regarding the giving of testimonials to applicants for various positions. He was requesting the Board to make a definite pronouncement on the matter.

The Board ruled that it was unwise for officers of the Society to give such recommendations.

(d) *"Agricultural Week."—Memo from Pedro Plains Branch.*—The Secretary stated that at the May meeting of the Board of Management a resolution was submitted from the Pedro Plains Branch asking that an Island wide Agricultural Week be promoted. The Board had directed him to ask the Branch to submit a scheme which he had duly received from the Branch and circulated to the Board.

He then read the comments which were made by members.

Messrs. Phillips and Reid came in.

It was decided that a Committee consisting of Mr. McKay and Major Moxsy, with power to co-opt additional members be appointed to go into the matter and submit recommendations to the Board.

The Chairman then related to the members who had just attended the proceedings what had taken place since the resumption and asked

that as there was now a quorum that their decisions so far be ratified.

On the motion of Mr. McKay, seconded by Major Moxsy, this was agreed to.

(e) *Application from Frankfield People's Co-operative Bank for appointment of Agricultural Headman for special services.* Letter from the Secretary of a Committee of this Bank was submitted, requesting that a headman be appointed for the area around Frankfield if not permanently, at least temporarily. The letter stated that the recent winds had destroyed banana cultivations and the Bank had procured a loan from the Agricultural Loan Societies Board to help with the resuscitating of these cultivations, and the request was for the services of the headman to assist the people in adopting correct methods of cultivation in connection with the storm damaged fields.

The Secretary stated that a headman had been recently sent to act temporarily in that area and he could be kept there until such time as as the Board deemed wise.

This was agreed to.

Rev. Mr. Thompson came in.

(f) *Application from Mr. A. V. Ping of British Guiana, for employment* with the Society was submitted.

The Secretary was directed to reply stating that they regretted there was no vacancy on their staff.

(g) *Memo from Accountant to Secretary re matters of interest to the Society arising from his trip aboard.*—The Secretary stated that the Accountant during his stay abroad had inspected certain articles which might be used by the Society to advantage. He procured samples of inexpensive paper bags which could substitute the crocus bags in use; he had purchased a camera at an advantageous price, selected buttons which could be procured if their use was adopted and looked into sundry other matters. The Secretary laid the memo on the table.

The Board directed the Secretary to thank the Accountant for his interest and thought.

(h) *Invitation from Clarendon Branches Associated for Board and Secretary to attend meeting* 15.11.35.—Letter from the Secretary of the Clarendon Branches Associated was presented inviting the members of the Board and the Secretary to attend their Half-Yearly Meeting fixed for Friday the 15th November.

The invitation was noted.

Observations on the outdoor staff in relation to expenditure.—Mr. McKay read some observations on the outdoor staff especially as regards the expenditure involved in connection with the supervision work of the Jamaica Agricultural Society. Among other things he pointed out there was need for an increase in the number of Agricultural Headmen as opportunity offorded.

The comments were received and tabled.

Committees.—

(a) *Staple and Minor Products—Report.*—The report of the Committee not having been completed, the item was deferred.

Mr. Reid made reference to the efforts of Mrs. Fray of Spring Plain, Milk River, in the manufacture of Cassava products, and stated that there was a proposal to form a company and put up a factory. The accomplishment of such a project would be the means of providing employment for a considerable number of persons and the development of a useful industry in the Colony. He was endeavouring he said to interest the Society in the scheme.

This was noted.

(b) *Memo from Bee Industry Committee.*—The following was submitted:—

October 9th, 1935.

Gentlemen:

Your Bee Industry Committee was advised at their last meeting on the 2nd October, that Mr. I. V. Reid was appointed a member of the Bee Industry Committee by the Board of Management at their September meeting. The Committee draws your attention to the fact that the Board has no power under the rules to do this and so have referred the matter back to you.

(Sgd.) GLAISTER BAXTER,
Secretary of the Committee.

The Secretary read Bye-Law No. 14 of the Board of Management which stated that "the Board may appoint Committees to report on special subjects; such Committees may be given power to add any member of the Society to their number."

The memorandum was noted.

The Chairman moved the suspension of the standing orders to admit the consideration of a report from the Instructors Committee which sat that morning. This was seconded by Mr. Thompson and carried.

The Secretary read the following:—

6th November, 1935.

To the Board of Management:

Gentlemen,

Your Instructors' Committee met this morning and beg to recommend the following:—

1. With regard to the resignation of Instructor Martin, the Secretary submitted a memorandum attached, and the Committee recommends to the Board the adoption of the second paragraph of the Secretary's memorandum.

2. The following applications for affiliation having complied with the regulations, are recommended to the Board for affiliation.—

Bowerswood	(St. Catherine)
Brixton Hill	(Clarendon)
Sanguinetti Settlers	do.
Exchange	(St. Ann)
Jack's River Juvenile	(St. Mary)
Lower St. Catherine	(St. Catherine).

(Sgd.) T. J. CAWLEY,
Chairman.

(Sgd.) GLAISTER BAXTER,
Secretary.

The Memorandum.

To the Instructors Committee:

Gentlemen:

Instructor O. P. Martin has obtained an appointment with the Department of Education and has requested me to get the permission of the Board of Management to release him from his duties with us at the end of October. I consulted the Second Vice-President and it was decided to do so.

I offer the following suggestions with reference to the carrying on of the work in view of this vacnacy: That the entire parish of St. Catherine be placed in charge of Instructor Byles and that he be given a special travelling allowance of £50 per annum for this; that he be provided with an Agricultural Headman for work in the St. Thomas-Ye-Vale area at a cost of £60 per annum, that the position now existing with reference to Instructoral work in the parish of St. Andrew be improved by placing the entire parish in the charge of Instructor Henderson and making him a similar special travelling allowance of £50 instead of the special allowance of £25 that he now receives. An Agricultural Headman has already been provided this Instructor on the Liguanea. That an additional Agricultural Headman be appointed in Upper Clarendon for special work in connection with the resusciation of banana fields for the present and afterwards in connection with the vegetable and citrus extension programme in that area. This expenditure should work out on an annual basis at:

Instructor Byles, additional travelling ..	.. £50	
Instructor Henderson additional travelling	.. 25	
2 Additional Agricultural Headman at £60	.. 120	£195

An expenditure for the five remaining months of the year of £81 5s. The saving on Mr. Martin's salary for the five remaining months of the year would be £187 10s. and if my proposals are approved there will be £106 5s. available to be used as the Board directs.

The other alternative that the Board will have is the appointment of two Agricultural Instructors at £225 per annum, one to take charge of Mr. Martin's district and the other to take charge of Mr. Hanson's district.

(Sgd.) GLAISTER BAXTER,
Secretary of the Committee.

Mr. Thompson moved the adoption of the report.

This was seconded by Mr. McDaniel.

Mr. Cover pointed out that the Board had committed itself to giving promotion to its officers along certain lines and the proposal under consideration was not in keeping with that policy. He moved that the areas allocated to Instructors be revised, a Junior Instructor appointed, and the Instructors entitled to increments be granted such increments—

This was seconded by Major Moxsy.

In the discussion which followed it was pointed out that in some respects it was disadvantageous to an Instructor who had established himself in a certain area to remove him from that area, also that the removal expenses consequent on the shifting of Instructors would be considerable and that Agricultural Headmen should not be substituted for Agricultural Instructors. It was also emphasized that the Board should adopt a definite policy of promoting the officers as promotion was due.

The vote on Mr. Cover's proposal was taken and this was carried, five members voting for and four against it.

The Secretary was directed to submit the names of Instructors who were due increments to the meeting arranged for the 20th November when the final arrangements for the carrying out of the scheme adopted by the Board would be worked out.

Diseases of Plants and Animals: Insect Pests.—

(a) *Panama Disease of Bananas—Report for September.*—The Secretary laid on the table the report on the incidence of Panama Disease of Bananas for the month of September and stated that copies had been issued to individual members of the Board.

Office.—

(a) *Scretary's report on travelling* done by him during October, was submitted and noted.

(b) *Leave Applications from (i) Miss Hanson for 3 weeks from 4th November; (ii) C. A. Crearer for 3 weeks from 18th November and (iii) Miss Cooper for 3 weeks from 2nd December* were presented, and on the recommendation of the Secretary the periods of leave applied for were granted.

(c) *and* (d) *Applications from Misses Lewis and Cooper for increase of salary* were on the suggestion of the Chairman deferred for considertion along with the Estimates.

Small Stock Subsidy.—

(a) *Application from Sligoville Branch re Stud Goat.*—The Secretary submitted letter from the Sligoville Branch requesting the Board to grant a subsidy towards the purchase of a stud goat of meat strain.

A subsidy not exceeding £2 2s. was granted.

(b) *Application from Richmond Park Branch re Stud Goat.*—A similar application from the Richmond Park Branch was submitted and a subsidy not exceeding 30/. was authorised.

Shows.—

(a) *Cornwall Agricultural Exhibition.*—The Secretary stated that he had been advised by the Secretary of the Cornwall Agricultural Exhibition that the exhibition proposed for the 1st January, 1936, had been indefinitely postponed.

This was noted.

Authorised Persons.

(a) *Return of Arrests for quarter ending* 30.9.35.—The Secretary submitted a summary of the return of arrests made by Authorised Persons during the quarter ending 30th September, 1935, and advised that this would be published in the Journal as usual.

(b) *Memo from Mr. A. Bullock.*—A memorandum from Mr. A. Bullock of Clonmel was submitted, stating certain difficulties experienced by an Authorised Person in the handling of a case where he made an arrest for coconuts. It was stated that the case had been before several Justices of the Peace.

The Board decided that they could not deal with the matter.

Branches.—

(a) *Application for Relief (Hurricane) (i) Garden Hill re Seeds.*—The Secretary submitted letter from the Garden Hill Branch stating that planters in that section had suffered loss especially of bananas and requesting the Board to make a free grant of peas and potatoes for pl nting to them.

The Secretary was directed to reply that the Board regretted that they had no funds from which such a grant could be made.

(ii) *Upper St. John's re seeds.*—A similar letter was submitted from the Upper St. John's Branch and the Secretary was directed to make a similar reply.

(iii) *Wood Park re loans for Banana Resuscitation.*—Letter from the Wood Park Branch was submitted, requesting the Board to approach the Government to aid planters to resuscitate their fields by granting them certain concessions with regard to loans which they already had in hand.

Ater discussion it was decided that the matter should be submitted to the Government.

(b) *Resolutions. (i) Christiana re representation of Parishes on Board of Management.*—This resolution which it was stated would be submitted to the next Half-Yearly General Meeting, requested that the rules of the Society be amended so that the Board should consist of His Excellency the Governor as President, the Colonial Secretary and the Director of Agriclture as *ex officio* members, and fourteen members, one from each parish to be elected by the Parish Associations of Branches, annually and three other members to be co-opted.

Mr. Reid said that it had been felt that as a result of the last triennial election one section of the Island had no representative on the Board.

Mr. McKay said there was a great deal in the resolution and its adoption would should make it possible to get representation well distributed. He suggested that it be referred to the Committee dealing with the revision of Rules.

Mr. Wint expressed himself as being against anything and everything parochial. He said the Society was the Agricultural Society of the Island and wherever the men most suitable for the management of its business could be found they should be elected regardless of where they were located.

The resolution was not passed.

(ii) *Buxton Town re work on Wakefield to Coolshade Road.*—This

resolution requested the Board to request the Government to confine the work on the Coolshade to Wakefield Road to the people of the Buxton Town, Wakefield and Coolsshade Districts.

The resolution was not entertained.

(iii), (iv) and (v) *Jackson re Authorised Persons and licensing of firearms, system of punishing thieves and Treatment of Yaws.*—The first two resolutions representing that Authorised Persons should be permitted to carry firearms without paying license fees and suggesting that henceforward thieves be imprisoned without the option of a fine, were not entertained.

The Secretary was directed to deal with the third resolution which complained about the substance used for injection for yaws.

(vi) *Mearnsville re Corn Industry.*—This resolution asked that the Westmoreland Branches Associated he urged to pool on a co-operative marketing scale corn grown by members of the Agricultural Society in Westmoreland with a view of approaching the Government to authorise the purchase of such corn in preference to that offered by other vendors.

The resolution was not entertained.

New Members.—

On the motion of Mr. McDaniel, seconded by Major Moxsy, Mr. C. N. Eddowes of 80 Constant Spring Road, Halfway Tree P.O., was elected to membership of the Society.

Other Business.—

(b) *Letter from C.S.O. re refund of £22 16s. 5d. (Bee Industry Grant).* The Secretary submitted the following:—

Nos. 6455/34. 31st October, 1935.

"With reference to your letter No. C.S.O. 174 of the 17th October, 1935, I have the honour to inform you that the Treasurer has been authorised to refund to your Society the sum of £22 16s. 5d. expended from the grant under Item 39 of Head XXXVIII of the Estimates for the current financial year to cover the cost of foul brood inspection prior to July, 1935.

2. Expenditure in connection with foul brood will in future be borne by Government under the authority of Section 4 of Law 9 of 1918.

(Sgd.) F. Brown,
for Colonial Secretary.

This was noted.

(b) *Memo from Secretary re short payment of Bee Subvention for month of October.*—This memo stated that the Bee Industry subvention for October was received £9 4s. 6d. short, being deduction for hee inspection services, the deduction being in line with the arrangement between the Board and the Department of Science and Agriculture for the carrying on of such services.

The Secretary was directed to refer the matter to the Government.

(d) *Letter from C.S.O. re Shows.*—The following was presented:—

Nos. 6941/35. October, 1935.

"With reference to your letter C.S.O. 175 of the 16th October, 1935, enclosing a copy of a Special Report by the Show Committee of the Jamaica Agricultural Society, I am directed to inform you that the Governor has noted with satisfaction the interest being taken in the matter.

2. His Excellency suggests that rules be drawn up governing the conditions for Shows and will be glad to discuss them with you if you will arrange to see him."

(Sgd.) F. Brown,
for Colonial Secretary.

The matter was referred to the Show Committee to make rules and later interview His Excellency.

(e) *Memo from His Excellency's Private Secretary re Seed Distribution.* The following letter was submitted:—

King's House,

1st November, 1935.

"Representations have been received from the South and East areas of St. Elizabeth to the effect that most of the ground provisions did not survive the drought of a few months ago and as a result the small settlers have no provisions to replant.

In view of the above His Excellency suggests that there might be a free distribution of seeds, etc., for ground provisions—e.g. sweet potatoes, cassava slips, etc.

(Sgd.) JERYMN RUSHBROOKE,
Commander, R.N.,
Private Secretary.

The Secretary said he had replied stating that a distribution of sweet potato slips and cassava sticks had just been completed in that area as was requested by His Excellency, but he would make further enquiry as to whether further distribution was needed.

This was noted.

(f) *Memos. from Supervisor Hanson and Instructor McLaren re Inroads of the Yallahs River.*—These communications requested the Board to again bring seriously to the notice of the Government the perilous position in which inhabitants of certain districts in St. Thomas found themselves as a result of the Yallahs River overflowing its banks below the Easington Bridge, causing much destruction

After dicussion the request made by Mr. Burke that the Secretary be authorised to visit the area and report on the matter at the Special Meeting before representations be sent to the Government, was granted, and the Secretary directed to do this.

(g) *Letter from Inspector General re recommendations re Agricultural Produce Law.*—The Secretary read letter No. 1382, J.A.S. 29/11/35, dated 30th October, 1935, suggesting sundry amendments to the report which had been drawn up by the Board.

The Secretary was directed to submit the matter to the Committee dealing with the proposed amendments to the Agricultural Produce Law.

(h) *and* (i) *Reports from Supervisors Hanson and Bacquie re Inspection of Apiaries during October.*—The Secretary was directed to refer these reports to the Bee Industry Committee.

The matter of assistance in the form of manual labour was raised in Mr. Hanson's report and the Secretary was directed to communicate with the proper authorities in regard to this.

(j) *Letter from Bee Instructor re Sale of Foundation.*—Letter from Mr. Coote asking for instructions as to sale of foundation from the Hylroy Apiary was submitted and referred to the Bee Industry Committee.

At Mr. Wint's suggestion the Secretary was directed to advise the Bee Instructor that he is directly under the supervision of the Supervisor of Instructors for the Eastern section of the Island.

(k) *Letter from Lucky Valley Branch re subsidized ram.*—This letter stated that the Branch had obtained a ram which was not ready for

service and requested the Board to grant a maintenance subsidy for this animal.

The request was granted.

The meeting then adjourned to Wednesday, 4th December, 1935 at 11.30 a.m.

BOARD OF MANAGEMENT.

A special meeting of the Board of Management of the Jamaica Agricultural Society was held at the office of the Society, 11 North Parade, Kingston, on Wednesday the 20th November, 1935, at 10 a.m. There were present: Rev. W. J. Thompson, Second Vice-President, in the chair, Messrs. C. O. Cover, T. P. V. McDaniel, U. Theo. McKay and W. Harper Watson; Messrs. P. St. L. Bacquie and A. P. Hanson Supervisors of Instructors and the Secretary, Glaister Baxter.

Apologies for absence.—

The Secretary stated that the Director of Agriculture had telephoned to say he would be attending the meeting but would be somewhat late

Estimates.—

(a) *Communications referred:*

(i) *Resolution re Services of Secretary.*

(ii) *Resolution re Prize Holdings Competition.*

(iii) *Cassava Varietal Plots.*

(iv) *Shows.*

(v) *Applications from Instructors re Promotion and increments (Messrs. McLaren, Thompson and Marr.)*

(vi) *Staff: (Secretary's Report on Seeds Clerk and application from Misses Lewis and Cooper for increase of salary.*

(vii) *Memo from Secretary re Instructors.*

The Secretary started to read the above items. There was some discussion as to the propriety of this and it was decided that they should not be read.

Mr. McKay spoke generally on the estimates to the effect that no increased work seemed anticipated according to the estimates but that nearly all the increases contemplated were for increases of personal emoluments and that this was not in the best interests of the Society

The Secretary stated that there was a separate sheet with the proposed new items for next year.

Mr. Wint moved that the Board go into Committee to consider the estimates.

This was seconded by Mr. Watson and carried.

Mr. Wint proposed that the estimates of revenues should be taken first.

Major Moxsy and Mr. Burke came in and took their seats.

The Secretary explained that the major portion of the revenue would be derived from a subvention from Government, the amount of which subvention could only be arrived at when the expenditure for the forthcoming year was decided on.

Mr. T. J. Cawley, First Vice-President, came in and took the chair

Mr. McKay said it would be useful if item (vii) was read.

The Chairman ruled that all the informatory communications listed on the Agenda should be read.

The Secretary then read (i) Resolution re services of the Secretary from the Troja Branch, passed by the Half-Yearly Meeting, asking that arrangements be made for increased travelling by the Secretary.

(ii) Resolution re Prize Holdings Competition from the St. Ann Branches Associated, praying that the Prize Holdings Competitions be reinstituted.

(iii) Letter from the C.S.O. No. 3031/33 of date 7th November, 1935, stating that the Government approved of the Cassava Varietal Plots. The Secretary explained that subsequent to this letter approving of the placing of two cassava varietal plots on the estimates, Mr. Burke had suggested and the Board had approved that a third plot should be considered in connection with the Llandewey area and so this third plot was also reflected on the estimates.

(iv) Letter from the Colonial Secretary advising His Excellency's pleasure in noting the interest being shown in proper organization of Shows by the Board and suggesting that rules for same be formulated and submitted.

(v) Letters from Instructors McLaren, Thompson and Marr, applying for promotion and increases.

Major Moxsy asked that a statement showing terms of employment and length of service and salaries of all officers of the Society be provided him.

This was done.

(vi) Application from Misses Lewis and Cooper, members of the office staff for increases of salary. Secretary's report on Seeds Clerk's work was placed on the table.

(vii) Memo from Secretary re Instructors was read as follows:—

November 18th, 1935.

To the Board of Management:

Gentlemen:

Going into the question of the re-organization of Instructoral districts on the lines of Mr. Cover's *Resolution at the last meeting of the Board*, I find that if, as the Resolution directs, an additional Junior Instructor be employed it will be unnecessary to make any alterations of the districts as they stand. I am led to this decision by having consulted with Mr. Hanson, the Supervisor for the Eastern area, who says that as soon as his operations on the control of the Foul Brood Diseases of bees is over he will be able to take care of the Branches that have been left under his Instructoral charge.

I am to point out, however, that the increments for which the Instructors are qualified amounts to the following sums:—

3 First Class Instructors	at £25	.. .. ..	£75	
10 Second Class "	at £20	.. ..	200	
5 Third Class "	1 at £10 4 at £15	.. ..	70	£345
Of this amount, four of the Instructors, those last employed, are not entitled to increments until next April, and so this amount can be reduced by		.. ..		£60
Leaving the sum of		.. ..	per annum	£285

Deducting this amount from Mr. Martin's annual sum of £450, leaves a balance of £165, which would be inadequate for the employment of a Junior Instructor.

If the First Class Instructors are not given increments, the per annum amount would be £240 which would take care of a Junior Instructor whilst he was being paid at the rate of £225 for his probationary period.

(Sgd.) GLAISTER BAXTER,
Secretary

(b) *Memo from Secretary re proposed Estimates.*—The Secretary read the following:—

Jamaica Agricultural Society,
11 North Parade, Kingston, Jamaica,
November 18th, 1935.

Memorandum from the Secretary to the Board of Management.

Gentlemen:

The demand for the services of this Society is increasing and this increase does not only embrace an increase in the numbers of Branches, Branch members and peasant proprietors to be served, but also on account of increasing interest of the larger landed proprietors and middle class farmers in various crops alternative to their usual productions, some entirely new and others new to them, we find that the Society is now being increasingly called upon for services to these additional classes which in the past seemed to require little from us.

These growing demands must cause a progressive increase both in the volume of work, the farm management technique and knowledge of scientific animal nutrition on the part of the field staff, and means must be planned to meet it if the Society is to continue the educational and demonstrative services which have been its main duties in the past.

My interpretation of the desired trend of the Society's operations is as follows:

1. More definite work in the nature of planned projects with a definite object in view.
2. Assistance in storage and marketing of certain crops.
3. A more highly trained field staff.
4. No increase of the expenditure under the head of Personal Emoluments.

It is not my intention to discuss in this Memorandum the trends under headings 1 and 2. The Board of Management and the Planning Committee cover these duties.

With reference to headings 3 and 4, as a more highly trained staff must inescapably mean higher salaries, and no increase of expenditure under the head of Personal Emoluments seems desired, both requirements would at first sight seem to be incompatible. They are, however, together quite possible but would need an entire reorganization of our staff, not necessarily at once, but should a definite policy in this regard be adopted and followed, such reorganization could be accomplished by easy stages and without hardships to any of the present personnel not equal to rising to the desired levels. Another feature of the present position not to be lost sight of is that the item "Personal Emoluments" is at present spread very, very thinly over a relatively large personnel, with the result, that our inability to increase expenditure under this head has effectively prevented the addition of routine increments to the salaries of the Instructors.

It is generally conceded that the salaries of Second and Third Class Instructors, which include travelling, are hardly adequate and cannot attract and retain the best men, and the present position as it stands, nearly without hope of improvement, except some change of policy is resorted to, can hardly be accepted as permanently satisfactory.

In view of what I have stated, I feel that it is wise to think of an organization that would represent the ultimate aim of the Board of Management and offer the following as suggestions merely, which would form at least a basis for the further consideration of the matter by the Board.

If it is conceded that the best brains available should be obtained for the teaching and organizing of the Colony's agriculture, and that it has to be paid for; it will also be admitted that it cannot prove economical to use it to do merely manual tasks that can be done as well by any well trained employee of the foreman type; also from the standpoint of economy the influence of the higher type employee has to be spread over wider areas.

I submit a map of the Island with tentative divisions of districts. These districts are eight in number.

I propose that the staff should eventually consist of eight agricultural field officers or Instructors with salaries of £300-£450 rising by annual increments of £25, plus travelling allowances of £150 per annum.

As none of our present Agricultural Instructors, except one, gets at present more than the minimum emoluments suggested, a start could be made on the basis of

1 Officer at £400 plus travelling £150	.. ..	£550
3 Officers at £325 plus travelling £150	.. ..	1,425
4 Officers at £300 plus travelling £150	.. ..	1,800
		£3,775

That the Agricultural Field Officers be provided with Agricultural Foreman with emoluments as under, which would permit the employment of well trained men for the purpose.

Agricultural Foremen:

Salary £78 to £104 per annum, rising by increments of £6 10s. per year.

For District No. 1	..	4
2	..	5
3	..	5
4	..	5
5	..	4
6	..	4
7	..	4
8	..	4
Total	..	35 at £78 .. .. £2,730
		£6,505

I suggest that the positions of Secretary and Supervisor be altered to (1) Secretary and Supervisor and (2) Assistant Secretary and Supervisor, carrying salaries as follows:

1.—£550 to £650 by increments of £25 annually plus travelling of £150 per annum.

2.—£400 to £500 by increments of £25 annually plus travelling of £150 per annum. This would now need £1,350.

This arrangement would permit of your field supervisory services being benefitted from the influence of both your senior and highest paid officers, who in the future may possess better qualifications than the present ones possess, and at the same time provide for a second officer who could automatically take the place of the Secretary whenever it became necessary.

The funds spent in these combined services at present amount to:

	£	s.	d.	£	s.	d.
Secretary	565	5	0			
Secretary's Travelling	100	0	0			
Supervisors and Instructors and Agricultural Headmen and special travelling ..	7,671	0	0	8,336	5	0
as compared with the proposals now submitted:						
Secretary and Supervisor ..	581	5	0			
Assistant Secretary and Supervisor	475	0	0			
Travelling for both	300	0	0	1,356	5	0
Agricultural Field Officers' Salary and Travelling .. .	3,775	0	0			
Agricultural Field Foremen	2,730	0	0	6,505	0	0
				£7,861	5	0

It is suggested that any savings realized by reorganization could be used to defray the cost of educational courses abroad to such of the officers of the staff as may be considered suitable and deserving.

It is suggested that each of the Agricultural Field Officers should be in possession of small farms where crop trials and plant propagation work could be undertaken. Needs for the distribution of improved or new varieties of plants and facts regarding production costs of various crops, and various kinds of demonstrations could thereby be met Such operations would of course be controlled by the expressed instructions of the Board of Management.

I am anxious that nothing that I have expressed in this memorandum should be interpreted by either the Board or the staff as a criticism derogatory to the qualifications or ability of the present staff, but it must be conceded that the Board of Management must be permitted to look ahead so as to ensure that the Society's services keep pace with the march of much needed agricultural progress and improved technique, by which alone the Society can justify its continued existence.

I also would like it to be clearly understood that these suggestions are not intended for immediate application, and it would hardly be advisable or practicable to revolutionise our organization overnight, but I feel it would be wise as opportunity offers, should the Board decide on such a policy as outlined, or any other policy, to take advantage of vacancies arising to start the carrying out of the policy decided upon.

(Sgd.) GLAISTER BAXTER,
Secretary.

With reference to the Secretary's memorandum regarding reorganization of the staff it was decided that the Secretary should bring the memorandum before the next regular meeting of the Board.

(c) *Proposed Estimates.*—The estimates were then considered item by item.

It was decided on a motion by Mr. McKay, seconded by Major Moxsy, that no increases should be considered for members of the Office Staff except the Secretary's increment to which they were committed by agreement.

It was decided that the Bee Instructor should be listed with the other Instructors.

Major Moxsy moved that the salary of the Bee Instructor be £300 per annum, that the sum of £150 be set aside for travelling in connection with his work and that this amount for travelling should not form a part of his emolument but should be paid to him at the rate of 5d. per mile for actual travelling.

This was approved.

It was decided that the Secretary be instructed to give the Bee Instructor Mr. H. H. Coote, three months notice of termination of his employment.

Some discussion ensued as to the method of control of this travelling and it was decided to refer this matter to the Bee Industry Committee for recommendations.

On a motion by Mr. Wint, seconded by Mr. Cover, the Bee Industry vote was reduced to £500 and referred to the Bee Industry Committee to work out the details.

The estimates of expenditure amounting to figures shown below were approved.

	£	s.	d.
Routine expenditure	11,675	15	0
Bee Industry Subvention	500	0	0
	£12,175	15	0

The page headed new items was then taken.

The item for Cane Nurseries was struck out and Vegetable Advances reduced from £500 to £200 and the page approved as follows:—

New Item for consideration with the Estimates.

Pension Scheme		£650
Prize Holding Competitions, £70 each, 4 for		280
Cassava Trial Plots, 3 at £10 each		30
Shows: as per Show Committee Report		
Non recurrent Item for provision of permanent Show Housing equipment		£500
Recurrent Item of £200 per annum for subsidising Shows	£200	700
Financing Vegetable shipments:		200
White Yam Competition		25
		£1,885

ANNUAL ESTIMATES 1936-37.

Heads of Expenditure.	Original Authorised Estimates, 1935-36.		Revised Estimates, 1935-36.		Estimates, 1936-37.		Increase.	
	£	s.	£	s.	£	s.	£	s.
Secretary and Office Staff ..	2,117	5	2,117	5	2,142	5	25	0
Supervisors and Field Staff ..	7,671	0	7,540	8/4	7,803	10	132	10
Instructors' Educational Course at Hope and attendance to Half-Yearly Meetings ..	125	0	1,125	0	125	0	..	
Instructors' Tools and Supplies	*75*	*0*	*75*	*0*	*100*	*0*	*25*	*0*
Secretary's Travelling ..	100	0	100	0	120	0	20	0
Printing and Stationery ..	100	0	100	0	100	0	..	
Printing and issuing Journals ..	800	0	800	0	850	0	50	0
Rents and Rates	58	0	58	0	58	0	..	
Rent of Telephones ..	27	0	27	0	27	0	..	
Postages and Telegrams ..	10		10	0	10	0	..	
Maintenance Office Equipment	15	0	15	0	15	0	..	
Incidentals	50	0	50	0	50	0	..	
Auditor's Fees	25	0	25	0	25	0	..	
Books for Library	10	0	10	0	10	0	..	
Show Equipment Repairs ..	*10*	*0*	*15*	*0*	*15*	*0*	*5*	*0*
Bombay Mango Propagation Plots; Citrus Budwood; Livestock Subsidies	100	0	100	0	150	0	50	0
New Office Equipment ..	40	0	40	0	40	0	..	
Encouragement, Juvenile Branches	..		10	0	10	0	10	0
Fertilizer Demonstrations ..	..		25	0	25	0	25	0
Free Seed Distribution ..	..		50	0	..		..	
Total	11,355	5	11,292	13/4	11,675	15	342	10
Bee Industry Subvention ..	500	0	530	0	500	0	..	
	11,833	5	11,822	13/4	12,175	15	342	10
New Items.								
Officers' Pension Fund ..	..		..		650	0	650	0
Prize Holdings Competition ..	..		..		280	0	280	0
Cassava Trial Plots ..	..		..		30	0	30	0
Shows: Non-recurrent ..	..		..		500	0	500	0
Do. Subsidies ..	..		..		200	0	200	0
White Yam Competition ..	..		..		25	0	25	0
Advance for financing Vegetable Shipments	..		..		500	0	500	0
	11,833	5	11,822	14/4	14,360	15 0	2,527	10

The meeting adjourned for luncheon.

On the resumption there were present: Rev. W. J. Thompson in the chair, Messrs. Burke, Cover, McDaniel and McKay; Supervisors Bacquie and Hanson and the Secretary.

Mr. Thompson moved that the matters dealt with in Committee be confirmed.

Mr. Burke asked that the item for financing vegetable shipment be recommitted to enable him to move that the item remain at £50 as in the original.

Mr. Cawley came in and took the chair, and Mr. Barton took his seat.

Mr. Thompson asked to be permitted to move a resolution with reference to the report relating to the Agricultural Loan Societies Board.

Permission was given and he moved the following resolution which was seconded by Mr. Burke:—

"In view of the report of the Commission appointed by His Excellency the Governor on the 3rd July, 1933 to enquire into and report on the advisibility of extension of the scope of the A.L.S. Board and whereas that Commission has submitted their report which in the opinion of the J.A.S. is full and comprehensive taking into consideration the various phases and function of that Board since its formation, and whereas by letter No. 6037/35 dated 13.9.35 from C.S.O. transmitted to this Society containing the wish of His Excellency the Governor to learn the views of this Society:—

Be it Resolved:—

1. That it is our considered judgment that the extension of the scope of the A. L. S. Board could be conducted on the lines recommended in the report, see paragraph 26.

2. That it is the popular wish of the country which is distinctly agricultural in its outlay and outlook that an Agricultural Credit Bank should be created. That it is our view that the A.L.S. Board should be used as the basis for developing the idea and so financed as to meet the object contemplated.

3. That it should not be a necessity in the time of hurricane disasters to have new legislative measures and create other organizations, very often making delay dangerous to the sufferers, to deal with the situation."

Mr. Thompson asked to be excused and left the meeting.

Action on the resolution was deferred until there was a fuller attendance.

Secretary's Report in connection with Flood Damage by Yallahs River.— The Secretary read the following:

November 14, 1935.

To the Board of Management—

Gentlemen:

As instructed, I visited the Yallahs area on Wednesday, 13th November and inspected the damaged lands on the banks of the Yallahs River covering the districts known as Heart's Ease, Wraywood, Taylor Piece and Poorman's Corner.

The damage done by the Yallahs River to the settlers in this area is very serious indeed. Not only is it important to consider the actual damage done by the river but it is quite as important to consider the future of these people as it appears nearly a certainty that further damage occasioning them practically total loss of their holdings will very probably occur when we experience another major flood. The floods in this area appear to get worse year by year, due to the progressive deforestation of the water-shed of the river, which covers a wide area, extending from the Silver Hill Gap through the main Blue Mountain Valley to the Easington district. The lands along the banks of the river south of the Easington bridge have also become more vulnerable to floods, due to the fact that the trees along the banks of the river have been removed in the process of putting these lands under cultivation. It so happens that the lands nearest to the river are the more valuable agricultural lands, being a very excellent alluvial deposit and also hitherto easy of irrigation as portions of the water in the river by simple dams are diverted by the people for irrigation purposes, which costs them nothing but the labour of diversion.

If something is not done for the people before another major flood takes place the problem will probably become one of handling a destitute population instead of what it is now one of assistance to a hard working and enterprising peasantry farmer class.

I gathered what details were avilable of the losses and I attach schedule setting out the information that I was able to get. Summarising this I find approximately 60 people affected with loss of acreage of well cultivated, irrigated land, amounting to approximately a total of 77 acres. It is possible that there might be a few more than I have stated, of which I was unable in the short time at my disposal to obtain particulars. The loss set out averages around 50% of their possessions but there are certain very hard cases where their losses are nearly 100%.

My recommendations for the alleviation of this situation are as follows:

1. That an endeavour be made by the proper authorities to obtain lands possible of irrigation in the near vicinity and make them available to them at current values with a 10 year period to pay for same. In view of the fact that in addition to these losses they have also suffered nearly complete destruction of their banana crops for the next eight or nine months, on their remaining lands, that they be relieved of payment on any fresh lands provided them for the first two and a half years of the ten year period; instalments of the purchase price to be spread over the remaining period of seven and a half years.

2. *That the leading people in the area be invited to promote a People's Co-operative* Bank through which these small farmers can be afforded small loans commensu ate with their necessities for immediately resuscitating the remains of their cultivations and establishing fresh cultivations on any fresh lands provided them.

3. That Government be invited to consider the advisability of acquiring by exchange of lands with all these people such lands as they still have remaining immediately adjacent to the banks of the river so that vigorous forest growth along the river banks could be encouraged and so further safeguard the large areas south of Heart's Ease as also the Government and Parochial Board road system south of the Easington bridge.

4. Looking into the possibilities of lands available, there are three properties that can possibly be negotiated for. These are: A. The United Fruit Company's property, Norris, which is already provided with an irrigation system and a large portion of which for some years the United Fruit Co. has thrown out of cultivation, not being considered absolutely first class banana land but which is of a soil-type that the settlers could grow bananas on and make a fair livelihood.

B. A property a little distance north-west of the Easington bridge belonging to the Parochial Board of St. Thomas and which has approximately 40 acres of level lands which could be provided at a relatively small cost with an irrigation system. The cost of pumping this water would he within very reasonable limits.

C. A property a few miles north of the Easington bridge, on the right bank of the Yallahs river, known as Mt. Sinai. This property has a fair acreage of level and irrigable lands, for which irrigation could be provided at a reasonable cost, and which would be well suited for small settlers' cultivations.

(1) or (3) would be able to provide a scheme big enough to cover the entire needs of the district, but if for any reason these were found impossible the Parochial Board lands, which would present no difficulties of acquisition, could provide a scheme which would provide for the needs of those of the sufferers who were hardest hit.

5. That the lands of the settlers who have suffered these flood losses should be immediately revalued for taxation purposes so as to relieve them of the taxes proportionate to the losses of lands sustained.

In conclusion I must mention some of the spirit I saw evinced by these people. In *one instance where three men together owned 7 acres of land and had lost 6½ acres of it* I found that they had started to clean and resuscitate the cultivation on the remaining half acre. A very dogged determination indeed to provide a livelihood for themselves.

I am Gentlemen,

Yours very truly,

(Sgd.) Glaister Baxter,

Secretary.

Statement of Flood Damaged Land Inspected by the Secretary Jamaica Agricultural Society in the Easington—Yallahs Area.

November, 13th 1935.

Lost Land.

Name.	Acres.	Name.	Acres.
Rupert Bogle	.1	Geo. Collins	.7
Robert Drummond	1.0	A. Stephens	.5
Alex. Hamilton	1.0	Isabella Thompson	.25
Marcus Loague	.5	R. E. Bogle	.25
James Stewart	.5	Y. H. Halliburton	2.5
Rupert Bogle	.5	Alex. Little	.5
Veta DaCosta	.5	Ina Bogle	.4
Chas. Bogle	1.0	Moses Graham	.5
Isadore Bogle	1.0	Y. H. Halliburton	.25
Sarah Bogle	1.0	Jackson Graham	.50
Tucker	1.0	Amos Anderson	.50
United Fruit Co		Joseph Bogle	1.00
Chas. Bogle	.5	Charlotte Marshall	.25
Mrs.?	.3	Margaw Shaw	.25
Clarence Miller	.3	Booth	.25
Zach. McKenzie	.3	Octavius McPherson	.50
Addie Dick	.75	Chas. Bogle	1.00
Egbert McKenley	.5	Cath. Thompson	.10
Amos Warren	.5	Jas. Ellis	.50
Elis. McKinley	.75	Moses Graham	.50
Arnold McKinley	.25	Y. H. Halliburton	.75
Hy. Stephens	4.00	Osborne Wilson	2.25
Y. H. Halliburton	7.50	Marcus League	
Sarah Gordon	.50	Wilton Loague	
Maria Collins	.3	Wm. Campbell	6.50
		[illegible] Island	

Lost Land, contd.

Name.	Acres.	Name.	Acres.
Jas. Stewart	1.0	Enos Williams	2.00
T. N. Loague	5.0	Peter Loague	.50
Clar. Miller	1.75	Martha Williams	.75
Walter Gordon	6.00	Daisy Brooks	1.50
Robert Drummond		Robt. Drummond	4.0
Jas. Loague	2.00	Enos Williams	.50
Alex. Hamilton	2.00	Y. H. Halliburton	1.75
Robt. Drummond			
Stanley Ford	2.25	Grand Total	77.25
Eliz. Ricketts	1.00		

Mr. Burke moved the adoption of the report and asked that it be sent to Government and that the Board appoint a Committee consisting of Mr. McKay himself and Mr. Ehrenstein to deal with any matters arising before the next regular meeting of the Board.

The report was adopted and it was decided that the appointment of a Committee was unnecessary.

The Secretary was directed to send forward the report to the Government.

Mr. Burke then left the meeting.

Report on Agricultural Loan Societies Board.—The Report of the Special Committee appointed by the Governor to enquire into and report on the advisability of the extension of the scope of the Agricultural Loan Societies Board was then placed before the Board.

Major Moxsy then moved that the matter be considered in Committee. This was seconded by Mr. Watson and carried.

It was agreed to discuss the recommendations contained in the report paragraph by paragraph.

Considerable discussion ensued and it was decided to recommend to Government that instead of a loan being made to the Agricultural Loan Societies Board acting as a Central Bank for the financing of member banks which member banks could be the Co-operative Loan Banks, that the Agricultural Loan Societies Board be provided with permanent capital by Government which would place the agricultural credit of the country on a permanent basis; that long term loans for periods up to 20 years at the lowest possible rate of interest should be provided for in the scheme; that the amount to be held as shares by borrowers to qualify them for loans should be reduced to a basis of £5 of shares for each £100 or part of £100 borrowed.

The resolution moved by Mr. Thompson was then formally voted on and lost.

The meeting then adjourned.

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PIONEER SENIOR SCRATCH

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A PLEA FOR PLANNING.

By Mr. R. S. MARTINEZ, Superintendent of Agriculture.

When driving through the country we cannot avoid being struck with the fact that in the majority of cases the holdings of the smaller proprietors have, like Topsy in "Uncle Tom's Cabin," simply 'growed up.' There is a glorious confusion of every imaginable sort of tree struggling for existence, and no single specimen doing anything like its best. The general effect of this mixture of crops is perhaps very picturesque, but one wonders if the owners are getting the best out of the land.

I know that it is difficult to foresee unto what the ultimate results of casual planting will develop. Very few people can resist the temptation to acquire any chance specimen of an economic plant with the idea that he can always find room for it, and that some day it will develop into a tree from which he will get something. The procedure is usually something like this: Brown pays a visit to Robinson and sees a couple breadfruit suckers. He has not the least idea where he proposes to plant them, but he simply cannot resist taking them home. Next morning a search is made and some part of the land that is not already overcrowded is presented with a couple of breadfruit trees. The fact that these trees, if the conditions are right, will occupy a very large area of ground when fully grown does not matter at the time. The immediate object is the planting of the trees and this has been done.

I do not think that this system can be defended from an agricultural point of view. The fact that we have a very diversified range of products, and that it is only natural for the grower to collect as many as he can, is not a justification for a hopeless mixture.

One thing he must bear in mind is that it takes a very strong will to cut down a fruit or economic tree after it has grown. It might be quite useless from an economic point of view, but it is a fruit tree. This point must be remembered as we so often hear 'Oh! I can cut down what is not wanted.' A special offender in this direction is the mango. This tree is very selective in its locations. It will grow anywhere, but it does not bear everywhere. How often we see an impressive mango tree, well covered with sooty mould, that never bears a crop. This tree is not only useless, but it is an absolute source of danger to other crops such as citrus, as it acts as a host for pests and diseases; yet it never is cut down. This is the type of tree that would never be allowed to grow if the settler has a good look around before planting, and thought out a proper plan for his holding.

It must be understood that a tree is a very complicated factory which manufactures a whole range of products such as sugar, starch, wood, oils, etc. The factory uses for this purpose a small amount of salts and a large amount of water from the soil, together with carbon dioxide gas from the air. The power which keeps this factory moving is sunlight which is absorbed by the leaves. When this is appreciated it will be seen that each tree requires its full place in the sun in order that it can manufacture to its maximum capacity the product in which the tree specialises and for which we grow it.

The amount of room required by a tree is not governed by the size of its roots but by the spread of its branches. If enough room is not allowed for the proper development of the leaf system a sort of competition to reach the sun takes place, and a tree like the mango, which is comparatively low and spreading when grown under good conditions, stretches out into a fair imitation of a coconut. I have seen breadfruit

trees under these conditions attain heights from which it must have been difficult to harvest fruits. Close planting to attain height is practised in pine plantations in the north where a long straight timber is desired, but this would not be considered the ideal for a fruit tree. There are quite a few homesteads in Jamaica where apparently the production of a tall straight tree is undoubtedly the aim of the owner.

The necessity for planning before planting will be seen if the above facts are appreciated. The plantation method of planting forty coconut trees per acre is the result of experience. If a hundred trees were were planted to the acre the yield would probably be under 1,000 small nuts, whilst with forty trees the yield would be about 2,500 nuts. We know that to get good grades in bananas proper spacing is required. Each tree requires its full share of light and root space.

There are trees such as cacao which for generations have grown under shade, but these are exceptions, and cannot be taken as examples of what the average requires

I am quite sure that if the majority of small holders (and in some cases big holders) would make a critical survey of their holdings they would find that there are quite a few trees that could be cut down as they are overcrowding their more useful neighbours. This must not be taken as a plea for the destruction of trees; as this goes on only too freely in the places where they should not be cut down; but as a plea to give the better and more useful trees a chance to do their best.

The actual selection of the trees would depend on the locality and the settler himself, but one is bound to wonder if trees like coconuts, which, except in special localities, are of very little economic value, have any place in a small holding. I recently had to visit a small holding area that is being developed. The old coconut trees in the district were distinctly unhappy and did not produce ten nuts per year. This obvious fact did not impress the settlers who were cheerfully taking coconuts to plant. These trees would in a few years be an encumbrance which would be difficult to get rid of.

Another point which is striking, is the crowding of trees around the homestead. Some of this is due to what we might call laziness—it is much easier to stick in breadfruit suckers near the house. Some of it is due to zeal in believing that the plants will get more attention if they are near home. In a great many cases, the plants have established themselves from the seeds thrown about from the house. Here the difficulty is either to destroy or remove casual seedlings. The guinep which grew by itself is not removed, and before the owner is aware, he has another large tree smothering all around.

The crowding of trees around the house cannot be good in a wet locality. Some houses are so smothered that it must be almost impossible for sunlight to penetrate into them. This is bad hygienically, as beyond the provision of reasonable shade all the light possible should be allowed to get into the house. It must be remembered that sunlight is now considered to be one of the best medicines, and people come all the way from England here to get a full supply—yet so often we do our best to prevent it acting on our homes here.

The possession of a small ornamental garden is a necessity in all homestead schemes. The houses which have their flowers are usually neater and better looking. The appreciation of flowers is natural, and every effort should be made to encourage a couple clumps of some flowering shrubs such as Hibiscus, Allamanda and Poinsiettas. They beautify the countryside, and must have an edifying effect on the grower. The question of amount of land for the garden would be

infinitesimal, and also, the amount of work necessary to keep a few ornamental plants in order is very small.

The owner of a new homestead should have some definite plan of what he proposes to do with his land. He should, if possible, lay out a section as an orchard where he can put in his fruit trees. This is not impossible as it is done in other countries. He should plant only such trees as he knows he wants, and those that will do reasonably well in his locality. A small holding is not exactly the site for a botaniceal garden, and the tendency to reach out in this direction should be avoided. In all planting of trees the grower should endeavour to see what will happen in ten years, and make his plans to cover not only the present but the future.

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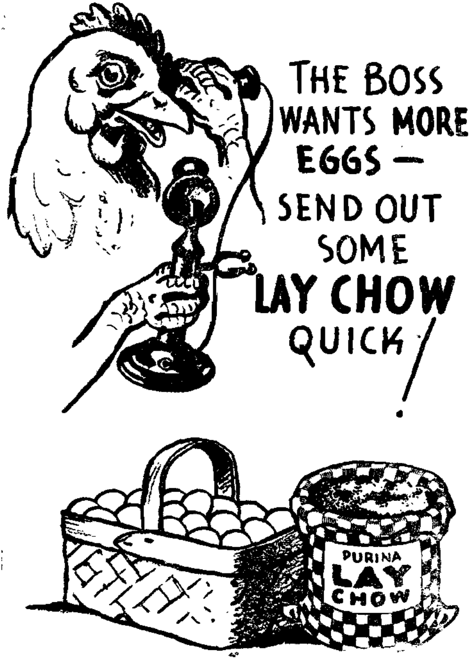

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EDITORIAL COMMENTS.

One of the major items of interest for the month has been the public outcry regarding the necessity of adequate permanent agricultural credit for the colony. We have other matters in regard to agricultural progress and stabilisation which have been put forward concurrently, such as, Banana Insurance, protection of the Jamaica Banana Producers Association, criticisim of the allocations of the proposed £2,000,000 loan, but in each of these there are divergencies of opinion as is to be expected. Permanent and adequate agricultural credit however, has behind it a unanimity of opinion which is encountering no class or political barriers. This is an excellent indication that the agitations of the Jamaica Agricultural Society and the work of its Board of Management for the provision of agricultural credit should in the near future bear fruit.

We have always felt that one of the greatest obstructions to the organizing of agricultural credit has been that the interests of the peasant farmer and that of the larger farmers. have never been considered as identical. Adversity seems at last to have forced this truth, i.e., the identity of interests, on the community and now we find them acting together.

It would not be fair to accuse Government of non-recognition of the principle or of the value of agricultural credit, as for many years several forms of agricultural credit has been operated by them. We enumerate those forms that come to mind. Hurricane Loans of 1912 and 1916 Sugar Industry Aid Board, Banana Industry Aid Board, Land Settlement Schemes, the Citrus Credit Scheme and of course the Loans made to Co-operative Loan Banks under the Law passed in 1906. The weakness has been the want of permanency of the capital so invested by Government in the several organisations appointed to administer these various credit schemes. The moneys so loaned and returned were repaid eventually into General Revenue and the credit thereby extinguished. Had it been otherwise, agricultural credit in the Colony would have assumed sufficiently adequate proportions to have met the development need and also the calamity need. The Jamaica Agricultural Society has always upheld the principle of a certain degree of compulsory thrift being enforced on the borrower. This principle is already in operation by the Co-operative Loan Banks with the result that the Government's Special Committee reporting on the advisability of extending the scope of the Agricultural Loan Society's Board (the parent body, so to speak, of these banks) has been able to report that these banks had at the end of 1934 a paid up share capital subscribed by its members of £41,936. The total amount loaned to these banks by Government to that date amounted to £141,372 of which £126,264 had been repaid. These figures very clearly show that Government encouragement organised in the direction of agricultural credit will eventually result in a large amount of capital being subscribed by the farmers themselves. This effort to which we have just referred is practically that of the peasantry proprietor class alone and at that only a small proportion of the total number. With the facts as stated in mind it can be readily realized to what a total the farmer subscribed capital of such an organization could attain in the relatively brief period of ten years.

Frequently many things known to be desirable nevertheless must wait on favourable opportunities for their creation. In our particular circumstances an overwhelmingly large majority of our agriculturists

feel that such an opportunity now presents itself for the establishment of a Government-aided agricultural credit structure. The availability of cheap money, the proposed loan, the distressed condition of the farmers, have together contributed towards the spontaneous and widespread demand, for the provision of agricultural credit and that the present moment is most opportune for the organizing of an agricultural credit structure on an adequate and permanent basis.

JUVENILE AGRICULTURAL EDUCATION.

The necessity for Juvenile Agricultural Education as a means of progress for the colony is now being generally recognized and the Government, the educational and agricultural leaders of the country are not one whit behind the community in recognition of the need.

Making elementary agricultural education available to the Juveniles of the colony presents a problem more of finance than anything else and although specialized vocational schools here and there in the Island is one very necessary link in this educational chain it should be readily realised that to provide a sufficient number of these, the amount necessary might well prove beyond our present means and so be a deterrent to the early realisation of any comprehensive scheme. In the meanwhile something must be done to bring elementary agricultural tuition to the Juveniles.

We are offering the suggestion that facilities be offered elementary school teachers to take post-graduate courses at the Hope Farm School and on satisfying examiners, they be given a diploma which all headmasters should possess as a necessary qualification for their position. That some added remuneration to salary be offered them while the system was being developed as an inducement to obtaining the Agricultural diploma. That the staff of the larger elementary schools be increased by one junior member and that the second master of the school be given small additional remuneration and the position of assistant headmaster. This arrangement would afford the headmaster with his agricultural qualifications, some time to devote to teaching and demonstrating agriculture to his senior pupils..

The larger centres should be provided with enough land and equipment to enable practical agriculture to be taught and demonstrations given.

Without presuming to be a student of the educational organizations of the colony these suggestions are submitted as being one economical method of having widespread elementary agricultural education made available to the many. The recent appointment of an Agricultural Inspector by the Education Department affords the means of ensuring a uniform policy regarding this matter and at the same time the maintenance of a proper standard of agricultural instruction.

IT IS CHRISTMAS.

Wishing you a happy Christmas, following closely on devastating storms, is apt to have a hollow sound. Nevertheless we do so with not only sincerity but sympathy. We have experience of your troubles and so can fully appreciate the difficulties and as you all know, fellow feeling makes us wondrous kind. There are some bright spots however, there always are, and it is good to seek them and be cheerful, and bad to look only on the dark side of things and be so downcast as to impair the grit, determination and hopefulness that is the prized

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possession of the Jamaican farmer and which is so necessary for his recovery after setbacks. We saw only lately a man who had lost 6½ acres of his land and cultivation by flood damage, cleaning up the only half an acre that remained—a lesson indeed. Among the bright spots is that of the increasing audibility of the organized opinions of agriculturists, which point to an increased interest in themselves, an increased community interest, and an increased intelligence, which opinions expressed with propriety, but with unanimity and earnestness must influence events for their benefit and relief and eventually for their stable prosperity. I therefore feel I must wish you a happy Christmas and prosperity in the New Year.

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THE BANANA INDUSTRY IN JAMAICA.

By Hon. H. W. JACK, M.B.E., B.A., D.Sc., Director of Agriculture, Fiji.

(Continued from October Issue.)

HARVESTING THE CROP.

When the fruit is sufficiently ripe for harvesting the practice on large estates is for a cutter to work with three or more carriers. The latter select the bunch to be cut and the cutter partially severs the fruiting sucker, 5-6 feet from the ground, in such a way that the bunch of fruit is made to descend slowly, so that the bunch can be caught in both hands by a waiting carrier. When the carrier has taken the weight of the the bunch in both hands the cutter adroitly cuts off the stalk four inches below and above the bunch. The carrier then immediately wraps up the bunch in leaf trash, ready for transportation to truck or roadside, the initial stage being usually done on the heads of women carriers. On small holdings similar precautions are taken in order to e iminate bruising the fruit as far as possible, though in this case the cutter usually works singlehanded, cutting and catching each bunch himself. Donkeys are used extensively by small holders for the transport of bunches from their holdings to buyers' packing stations, *especially in the hilly areas inland and it is a remarkable sight to see hundreds of donkeys so employed on Mondays—the great banana* packing and transporting day for the ships which usually sail on Tuesday evenings, Each donkey will carry up to six or even more bunches, neatly balanced and packed in trash and securely fastened to the girth, while, *in* addition, the donkey often has to carry his owner as well. Donkey loads of bananas calculated at between 300 and 400 lb. have frequently been seen along the roads by the writer and there is no doubt that these beasts play a very important part in primary transport in Jamaica, being cheaply fed and costing only some £2 to purchase.

Mule carts drawn by two or three animals are also frequently seen carrying heavy loads of bananas to the packing sheds or railway stations while main transport to the wharves from buying and packing stations is effected by lorry, tramway or train, meticulous care in each case being taken to pack the bananas with ample quantities of trash to reduce bruising to the minimum.

SHIPPING.

The bananas, well protected by layers of trash, reach the wharves in rail trucks, which have a capacity up to 1,200 stems of fruit, in lorries, and an occasional mule cart. The bunches are collected at depots distributed throughout the principal growing areas by registered buyers or agents who are preferably growers themselves, while many of them are members of the Jamaica Banana Producers' Association. The agents of the latter Association are paid a commission of 25s. per 100 "count" bunches from which they must pay all their expenses up to the loading of the fruit on rail or in lorry and such expenses are reckoned at around about 12s. per 100 stems. Agents are expected to examine members' (contractors') areas, to canvass for additional members, to estimate crops, to organise the collection of the crops in their areas, to select the bunches for transmission, to pay cash on receipt of bunches and to maintain a precise record of sales effected by each individual

A regular day each week is specified on which fruit must be cut and brought to the buyer, and the system is so well organised that less than 48 hours elapse between cutting the bunches and the completion of loading into the ships, although much of the fruit is transported over distances of 40 miles or more.

Advances of cash are made to growers on taking over their bunches at the standard rates of 2s. per "count" bunch, that is, 9-hands and over; 1s. 6d. for 8-hand bunch; 1s. for 7-hand bunch, and 6d. for 6-hand bunches. The agents are also expected to check any attempts of the growers to sell their bunches to outside buyers and this task is by no means easy since competitive buyers are at present paying 3s. per count bunch and use their discretion as to whether bunches of less than full count (9-hands) are received. The major part of the crop purchased by the Association is derived from holdings of less than five acres, and probably from holdings of round about one acre only, carrying some 300-500 plants at the most and generally estimated to produce approximately 100 count bunches per annum. At the collecting depots, loading labourers are usually paid daily wages, but piece work is also in use according to local arrangements.

At the wharves, the carrying labourers, mostly women, may number as much as 500. These are paid 1s. 9d. per 100 stems and they usually earn about 5s. or 6s. per diem, which may last for as much as 18 hours. On the ships the stems are passed from hand to hand very speedily along a chain of men down to the final position of the bunches in the hold. These chains of men usually number about 20 men and there are usually about 10 such gangs at work when a ship is being loaded—the men in these gangs are paid 2s. 6d. per 100 stems and are generally reckoned to earn 7s. to 8s. per day. They work quickly and must handle some 7-8 tons each at least as they are said to handle between 300 and 400 bunches in the day and an average bunch would weigh some 40lb; at present (low because of adverse weather as already mentioned). Any labourer who happens to drop a bunch is immediately sacked, but such an occurrence is very rare.

On the wharf, labourers in the lorries and railcars (after removing the protecting trash) hand out each separate bunch which is then carried on the head of the carrier in such a manner that a trimmer, armed with a very sharp cutlass, can trim all stalk ends which appear to him to protrude more than four inches, beyond either end of the bunch of fruit. The carrying labourers file past a "selector" who shouts out the class (bunch, eights, sevens, sixes and rejects) of each bunch for a "tally" man to record and as a check on this "tally" each carrying labourer pulls a cord or chain to register on an automatic counting machine, each register of the machine being marked by the sound of the bell.

Each labourer then receives a small metal counter for each bunch, the counters being retained for payment at the end of the day's work. The carriers just before handing over the bunches to the "chain" gang at the ship's side, again pass a selector, tally man and recorder as a final check on the amount of fruit stowed on the ship. A small proportion of the fruits taken off the lorries and rail trucks is rejected for shipment and such "rejects" are piled up in the sheds for sale at whatever prices can be obtained locally for local consumption, an average price of about 4d. per stem being realised. The proportion of rejects at the wharf is less than 2 per cent. of the total which testifies to the good work done by the agents in the buying and packing stations. The "selectors" and tally men usually sit on stools 5-6 feet high to afford the best possible vision of each passing bunch which is held

on the carrier's head by the hand which is the more remote from the selector. "Rejects" are mainly composed of bunches of less than 6 hands or of larger bunches which have been damaged in any way or are composed of under ripe fruit or fruit with excessively short fingers.

The carrying labourers usually pass between guide fences near the ship's side to regulate their order and "chain gang" handlers frequently drone some rhythm to assist them in their efforts. As regards the actual storage space on the ship ("Jamaica Progress") bananas were stored in three decks, some 7 feet apart and in four holds (2 forward and 2 after). In each deck in each hold the space was divided laterally into 3 and logitudinally into 5 bins, thus allowing or 15 "bins" per deck *per hold or 45 bins per hold.* Each bin being approximately 15 feet long by 12 feet wide and 6½ feet high, allowing space for some 400-500 stems averaging about 40 lb. per stem. The divisions between the "bins" were portable and consisted of stout planks fitting into slotted stanchions, and the flooring above the steel decks was made of wooden grills allowing for 1½ inch air spaces between each four-inch bar. Ventilation was excellently effected by seven adjustable vents *(8 in. x 6 in. each) situated at different levels* in the end of each lateral "bin" and opening into air passages along the sides of the ship in direct connection with the air pumping mechanism. The ship's sides and bulkheads and the highest and lowest decks were insulated to minimise heat conductivity. The stacking of the bunches was arranged so that the bottom layer of stems was packed in a vertical position and in the top layers, 6 in number, the bunches were laid horizontally, care being taken that all packing was tightly arranged so as to avoid any movements in transit. It was suggested that layers of dry banana trash placed over the erect bunches and between the third and fourth layers of recumbent bunches would be an improvement that might be worth

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the extra time and labour involved—there is always plenty of dry trash left on the wharf which at present is burned when loading is completed —unless its use should be attended by additional insurance risks.

The number of "bins" and holds on the various ships vary, but sufficient space in most ships is allowed for storing 50,000—90,000 stems. The chilling of the storage space is effected by sucking chilled air through the ventilation system and the optimum temperature is stated to be 53° F. which has been found to maintain the fruit in excellent condition while retarding the natural ripening process. The air is chilled by passing it through a close network of chilled pipes before it is sucked into the ventilation system. The pipes are filled with brine, and chilled by passing ammonia through the brine, the ammonia being recovered by condensation for continuous use. The process of cooling down the stored fruit can be speedily effected, but experience has shown that the process should not be accelerated too much and that 40—48 hours is the optimum time. Once the fruit has been chilled to the requisite temperature (53° F.) it is comparatively easy to maintain that temperature but in addition to chilling, it has been found beneficial to change the air or at least to draw in fresh air into the bins not less than twice daily and sometimes three times in warm, moist weather to eliminate the carbon-dioxide and other gases which tend to accumulate. Temperature readings are taken at regular periods, day and night, and a *check dial temperature indicator* shows the actual temperature at any time in each hold in the ship. It may be mentioned that temperatures can be regulated separately in each hold. It is customary to start cooling down the holds two days before loading up with fruit and for two days after loading chilling is closely watched as much sun heat contained in the cargo has to be dispelled. While the chilling of the fruit down to 53 F. is necessary for its transport in good condition, care must be taken to avoid over-chilling or freezing which is detrimental. Though hand loading is the rule in Jamaica in order to give much needed employment to many labourers, at European and American ports unloading is said to be achieved by the use of mechanical conveyors, but in either case the operation is always performed in one day.

Costs of Production and Marketing.

In a country where production is mainly effected by small holders it is difficult to estimate costs of production in currency figures as time is of variable consequence in different parts of the country and with different individuals.

In alluvial lands, previously cropped for many years, the costs of planting by large estates, including supervision, are said to aggregate £14 per acre, the individual items in this amount being as follows:—

	£	s.	d.
Forking—first time	3	0	0
Suckers	0	14	0
Holing and planting	0	10	0
Draining and irrigation	6	10	0
Weeding and pruning	1	10	0
Forking—second time	1	0	0
Harvesting	0	16	0
	£14	0	0

For a ratoon crop or for re-planting the area the costs are said to vary around about £12 per acre, forking, trenching, irrigation and weeding being the main channels of expenditure.

The returns from well-tilled alluvial land, which should produce an average of 200 count bunches per acre per annum should amount approximately to £20 at present low prices (2s. to 2s. 6d. per count bunch). On small holdings where much less attention is given to cultivation, where irrigation practically does not exist and where drainage is very rudimentary, the costs of production are considerably reduced and would aggregate £6 to £7 per acre, while returns, estimated on 100 bunches per annum, should amount to £10 per acre. Considering that the small holders usually produce nearly all their own food on the same land on which they grow their bananas, the returns from their lands are highly remunerative and greatly advantageous to trade in general, since banana sales are almost invariably effected in cash which is very quickly put into circulation by the cultivators.

According to statements supplied by the Jamaica Banana Producers' Association the cost of production per count bunch on large estates varies from 2s. to 2s. 6d. including supervision charges, but as already pointed out, only a small percentage of the export crop is derived from large estates.

The costs of placing the bunches in the ship are estimated to cost this Association 13 pence per bunch, made up as follows:—

1. Agents' Commissions ..	3 pence per bunch.
2. Head Office administration	1 "
3. Rail and/or lorry. ..	5 "
4. Haulage on wharf ..	1 "
5. Labour on wharf ..	1 "
6. Stevedores on wharf ..	1 "
7. Loading supervision ..	1 "
Total ..	13 pence per bunch.

Steamer transport costs, incurred by the Association, between Jamaica and England, including insurance, chilling, supervision, &c., are said to vary between 1s. 6d. and 4s. per count bunch, according to the size of the consignment and the amount of cargo carried on the outward journey (no cargo, other than bananas, is carried on the homeward trip) and an average cost is stated to be 2s. 6d. under this heading. Unloading in England, using mechanical conveyors, costs 10 pence per count bunch, which includes all handling charges to the specially designed storehouses on the wharves. The sale of bananas shipped to Europe by the Association (England 45 per c nt. and the Continent 55 per cent.) is effected by a separate company, known as the Jamaica Producers' Marketing Company, which was formed for that purpose and in which the Association holds 75,000 shares of £1 each. This Marketing Company works on a commission which varies between 3½ and 4 per cent. of the gross receipts from sales, which would appear to be a reasonable charge. The prices realised for Jamaica bananas in England during the 12-month period August, 1933, to July, 1934, were low, averaging just over £19 per ton which would be equivalent to a little over eight shillings per payable 9-hand bunch, while in Eastern Canada in the same period prices approximated six shillings per payable bunch, steamer freights to Canada being lower than to England. Prices in Western Canada are said to be slightly better than in Eastern Canada.

The costs of marketing Jamaica bananas per "count" bunch in England can thus be summarised as follows:—

	£	s.	d.
Advance payments for fruit	0	2	0
Transport and commission f.o.b. ..	0	1	1
Freight, chilling, supervision on steamer	0	2	6
Transport steamer to stores ..	0	0	10
Marketing	0	0	4
	£0	6	9
Average price realised, 1933-34 ..	0	8	0
Difference	£0	1	3

The net proceeds of sales are pooled and distributions of profits, after making reservations towards the building of new steamers and the payment of interest and sinking fund on debentures (2d. per bunch) are made to members and growers periodically, sometimes three-monthly but more often once in six months.

The organisation as built up by the Jamaica Banana Producers Association has established the banana industry for the small holders whose fruit realises the same price as that of the large producers, while fruit prices are so arranged as to encourage good cultivation by the growers. Owing to restriction, by natural causes, of supplies of fruit in Jamaica and elsewhere prices in the middle of the year tended slightly upwards in the world's markets, but it is doubtful if this tendency would be maintained in the winter months when demand usually slackens materially, especially in Canada and the United States of America.

The size of the chief markets for bananas may be gauged by a perusal of the following table of imports for 1932 and 1933 in "count" bunches:

	Bunches, 1932.	*Bunches*, 1933.
Europe	38,618,000	36,132,000
U.S.A. East	24,945,000	20,284,000
" South	18,017,000	15,434,000
" West	2,698,000	2,284,000
" Total	45,660,000	38,002,000
Canada	2,536,000	1,851,000
Grand Total ..	86,814,000	75,985,000

The large reduction in the total imports shown in the above table for 1933 as compared with 1932, is mainly due to the big decrease in production (approximately half) in Jamaica for reasons already mentioned, coupled with reduced spending power particularly in Canada and the U.S.A.

The chief exporting areas in 1933 are indicated in the following table:

Chief Exporting Territories.

	Bunches.		*Bunches.*
Jamaica	10,563,000	Nicaragua	1,707,000
Honduras ..	8,265,000	Vera Cruz	1,535,000
La Ceiba ..	3,790,000	Colon ..	1,254,000
Limon ..	3,445,000	Cananova	571,000
Frontera	2,964,000	Haiti ..	6,000
Baracoa ..	1,739,000	Other Countries	40,146,000

The two tables given above have been complied from information which was generously supplied by the Directors of the Jamaica Banana Producers' Association.

THE JAMAICA BANANA PRODUCERS' ASSOCIATION LTD.

The Jamaica Banana Producers' Association Ltd. was formed in 1929 to promote competition amongst exporting buyers and by so doing to ensure reasonable prices for growers.

The Head Office of the Association is situated in Kingston and carries the entire responsibility of conducting the local operation of the Association and, in addition, formulates and controls the policy of the Association in Jamaica and in the markets abroad.

The Association is a thoroughly well organised co-operative conern which markets only fruit produced by its own members and does not buy fruit in the open market. Its members now number over 16,000 and control approximately one-third of the bananas produced in Jamaica so that there is still plenty of fruit for competitors normally, but at present (1934) fruit is scarce as a result of the 1932 hurricane and the 1933 adverse weather conditions which had the effect of reducing the exports of fruit for 1933 to approximately half the export for 1932. The temporary scarcity of fruit is tending to force prices upwards and it has been stated that this trend of prices is tending to undermine the honesty of a small percentage of the members who have contracted to sell their fruit to the Association.

As cash is paid on bunches on delivery to the Association's Agents and as some 60,000 to 70,000 bunches per week are purchased, it can be realised that the Association plays a very important part in the economic. industrial and social life of the community in effecting a rapid circulation

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of currency and the downfall of the organisation would be a serious calamity for the country.

The Association has an authorised share capital of 240,000 shares of one penny each, of which 67,750 shares have been issued (one penny share per acre of cultivation). In addition, 400 debentures of £500 each have been issued, of which half were taken up by the Government and half by the Di Giorgio Fruit Company, which has, thereby, a claim on half the space in the ships which were purchased to carry fruit to Europe. Of the debentures 233 have already been redeemed, thus reducing the debenture liability from £200,000 to £83,500.

Towards the redemption of debentures twopence per count bunch has been deducted from the gross proceeds, since the inception of the Association, and this policy is being continued.

Other liabilities of the Association include a loan from the Colonial Development Fund for the purpose of building ships amounting to £45,835 and mortgages amounting to £195,736 on two ships recently completed which are now in service.

The chief assets of the Association are the half-ownership of three of the four steamers originally purchased on the formation of the Association, the full ownership of two new, well-equipped fast steamers; 75,000 shares of £1 each in the Jamaica Producers' Marketing Company which effects the sales of all fruit shipped to Europe; capital advances of some £60,000; £10,004 invested in the Jamaica Direct Fruit Line which operates the four steamers originally purchased; investments in the Jamaica Banana Producers' Steamship Co., formed to operate the new vessels built by the Association and some £80,000 standing to the Association's credit as outstanding accounts, debenture redemption fund and other incidental credits.

The Association's Agents are scattered throughout the main banana-growing areas and all their accounts are regularly inspected and audited and little loss has been sustained through default by Agents during past five years. The method of payment of Agents by commission on "count" bunches and of purchase of bunches on "count" scale have already been indicated in this report.

In 1933 the standard advance per "count" or payable bunch was 2s. and the year's working resulted in a net profit of a further 4.71 pence of which 2.5 pence was paid to the growers who thus averaged 2.2½d. per count bunch for the year. The policy of the Association is to construct annually one modern vessel for the efficient transport of bananas until sufficient transport is available and towards this purpose reserves are being established, in addition to the reserve of 2d. per bunch for the redemption of debentures. The progressive policy of the Directors has been retarded this year by the disasters of 1932-33, but an order for a third new ship (the "Jamaica Persev rence") has recently been placed with a British firm of ship-builders.

The year 1933 was a trying one in all classes of business and the Association appears to have weathered the crisis creditably. The Government played a big part in establishing the Association which is now responsible for a considerable proportion of the exports of the Colony and in further assisting the industry to repair damage caused by weather conditions, including hurricanes, by authorising advances of cash up to an aggregate of £100,000 at the reasonable rate of interest of 5 per cent.

The Government also spends a considerable amount annually in efforts to stem the spread of "Panama" disease and to develop means of coping with it, including the isolation and testing of strains and

varieties likely to prove immune or resistant to "Panama" disease, and to the dire effects of storms.

The history of the banana industry in Jamaica shows that the country has suffered heavily from hurricanes and storms in the past which in a few minutes have devastated the work of twelve months or more, but the planters have always responded with much perseverance and repaired or replanted damaged areas as rapidly as possible in order to make up for their losses. The Association has passed through a critical period and the small planter now realises advantages which accrue from membership, of which the chief point is that he can now market his fruit on equal terms with the big planter.

The small holders have benefited most by the organisation of the Association and it is expected that they will respond by being loyal to their contract to sell all their fruit to the Association, in spite of tempting prices which may be offered for a time by competing concerns. In this connection it has been stressed that full shipping space means smaller freight and working expenses per bunch, but this economic aspect of loyalty to the Association is difficult to instil into the minds of the growers. Naturally, quality and weight of fruit are also important factors in connection with fruit sales and these characteristics should be brought to the attention of small holders constantly. Prices for fruit sold in England vary by as much as 5d. per count bunch on the average for fruit of full weight as compared with fruit of light weight, or 2d. for each lb. above the average. Moreover it is claimed that the Association's ships, on account of their special ventilation arrangements, can successfully carry fully developed fruit which competitors do not desire to accept.

This knowledge, it is hoped, will lead cultivators to give their plants, by cultivation, every chance to enable them to produce really good bunches especially as it is already known that the larger markets are showing a disinclination to accept small or underfilled fruits. In addition, the importance of regularity of supplies in sufficient quantity, especially during periods of the year when better prices prevail, should be stressed in any effort to improve the banana industry amongst small holders.

The dire effects of the adverse conditions of the past two years have brought into prominence the important question of insurance and a Select Committee of the Legislative Council has been appointed and is now considering the question with the object of putting before the Government and Legislature a workable scheme. This Committee is seeking information from all sources and it is a matter which materially affects not only growers directly but merchants and traders indirectly, so that is is hoped and expected that some practical scheme will be evolved.

The difficult times through which the Association has passed have shown that by perseverance, by co-operation, by continued loyalty and by marketing only fruits of high quality the organisation can continue to hold the goodwill and confidence of buyers.

The development of new markets does not proceed at the same pace as the development of areas under production in Jamaica so that competition is fast becoming keener and the need for still better fruit is urged in order to maintain exports. Moreover, in addition to competition in the production of better fruit, extended markets are hampered by protective tariffs which tend to restrict export markets to

It may be mentioned that in 1933, despite adverse conditions, the ıssociation exported 2,784,082 bunches which is equivalent to 27 per ent. of the total export for the year. Also, 99 per cent. of the members ·ere holders of less than 50 acres (probably the average being som· 2 cres) while 74 per cent. of the total acreage under the Association ·as worked by small holders who produced 51 per cent. of the payable unches.

·ENERAL DESCRIPTION OF THE LATEST STEAMER OWNED BY THE JAMAICA BANANA PRODUCERS' ASSOCIATION.

The new "Jamaica Producer" which has been built to a high standard s regards efficiency, seaworthiness and economy, has improved refrigera- ing machinery of the type carried by the "Pioneer" and the "Progress." 'he insulation of holds and equipment of the fruit fittings are also omewhat different, the alterations being made with a view to improved fficiency and to increased carrying capacity.

The vessel, which is of the following dimensions: length, 411 feet verall; beam, 54 feet 7½ inches; depth, 33 feet 6 inches; and a onnage of 5,325 gross and 2,935 net; has a passenger accommodation ·hich is modern in all respects, providing comforts of every description ought by the travelling public. There are six double cabins on the ·romenade deck forward, and four single on the deck below. All hese staterooms are fitted with baths, hot and cold water, electric fans ınd warm and cold air circulation. There is a large lounge forward on he promenade, finished in mahogany, and a large smoking-room on he after end of the same deck, finished in dark oak. The dining-room

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is located on the main deck and immediately under the lounge; it is finished in light oak.

The engines were built and installed by Messrs David Rowans and Co., Ltd., and are of the balanced quadruple expansion type. Steam is supplied from five boilers, equipped with superheat and worked by Howden's latest force draft systems. They are fitted with Andrew's and Cameron's valve on H.P. cylinders, and are provided with the latest type of feed heaters. Oil is used as fuel—a precaution towards economy.

STRAWBERRY PLANTS USUALLY DIE IF NOT SET AT PROPER DEPTH.

In transplanting strawberry plants, an opening in the prepared soil should be made just deep enough and wide enough to accommodate the the roots when spread slightly, and to allow the crown of the plant to be level with the ground when the soil has been throughly firmed about the roots, says Professor T. J. Talbert, in Missouri Experiment Station *Circular* 176.

The opening in the soil may be made with a dibble or other implement suitable for the purpose, or with the fingers, he adds. If the crown of the plant is covered with soil, the plant will usually die or make a slow growth. If the crown extends too far above the surface of the ground the plant may dry out and die—or become unprofitable.

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It is with much pleasure that we publish an article by Dr. A. E. S. McIntosh, B.Sc., Ph.D., Geneticist, Barbados.

To the layman who knows very little of the technique and difficulty in the breeding of seedlings the information will be most interesting and useful and we are sure will be very highly appreciated.

Editor.

BRITISH WEST INDIES CENTRAL SUGAR-CANE BREEDING STATION.

A short Account of the Methods employed in Sugar-cane Breeding and Seedling Testing with special reference to the Sugar-cane Seedling Requirements of Jamaica.

By A. E. S. McIntosh, B.Sc., Ph. D., Geneticist.

Introduction.

The object of the British West Indies Central Sugar-cane Breeding Station is to produce sugar-cane seedlings suited economically to the various sugar-cane growing areas in the Islands of the British West Indies. The station is situated in Barbados for three important reasons, i.e. (1), the peculiar suitability of climatic conditions in Barbados to the production of sugar-cane seedlings, (2) to the fact that sugar-cane breeding and seedling selection has been pursued systematically in Barbados for forty years, (this has resulted in the evolution of seedling types suited in general to conditions in the British West Indies and in a technique for seedling breeding and selection which requires years of experience to attain), and (3), in Barbados there is already present the necessary special equipment for this work.

Whereas previously sugar-cane breeding had been done with a view to satisfying Barbados seedling requirements only, more recently it was felt that the work in Barbados should be expanded to satisfy the requirements, both general and particular, of the British West Indies. Accordingly, with a view to starting this work the Imperial Government granted money in 1932, in addition to that voted by the Government of Barbados for this aspect of the work of the Barbados Department of Science and Agriculture, in order to initiate a scheme of breeding for the British West Indies.

It is anticipated that in the near future the grant given by the Imperial Government shall cease, and, in its plaçe, an equivalent annual sum will be subscribed by the Colonies served by the Central Sugar-cane Breeding Station.

Jamaica has signified its intention to subscribe proportionately to this fund and therefore merits special consideration in the work of the Central Sugar-cane Breeding Station.

The Sugar-Cane Seedling Requirements of Jamaica.

In 1934, the writer surveyed the Jamaica sugar-cane growing areas with the primary object of assessing the types of sugar-cane seedlings required. The result of this visit enable the Central Cane Breeding Station to initiate in addition to its general breeding programme, a particular line of breeding and selecting for Jamaica conditions.

The requirements of Jamaica are briefly considered below. These considerations are a followed by a condensed account of the breeding and initial selection work carried out by the Central Cane Breeding Station in Barbados.

The sugar-cane soils in Jamaica are for the greater part naturally fertile. With favourable soil moisture conditions and in the absence of mosaic disease (or where this can be controlled), these soils are well suited to growing thick canes of the noble variety—*saccharum officinarum.*

The type of thick-cane seedling required for these areas varies *according to the length of the favourable growing season.* This varies throughout the fertile soil areas and is the chief factor influencing the allocation of thick-cane seedling types.

For *each sub-division of the fertile soil areas* it is desirable to have a minimum of two seedlings; an early and a late ripener. This, in addition to other advantages, results in a sustained high juice quality throughout the crop.

In parts of the fertile soil areas in Jamaica, mosaic disease is uncontrollable in susceptible varieties. This renders impracticable the growing of noble-cane seedlings, since these as a class are susceptible to mosaic disease. It is therefore necessary to produce seedlings which possess commercial resistance to mosaic disease and, *at the same time,* the field and factory attributes of the noble-cane.

Commercial resistance to mosaic and indeed complete immunity is *possessed by several wild cane species, but notably* ***glagah*** (Saccharum spontaneum) of Java. These types are of course of themselves commercially valueless.

In breeding for the areas in question in Jamaica, this species is being used as a foundation stock by the Central Sugar-cane Breeding Station. *The aim is, by continued crossing with Barbados varieties and selection, to produce seedling types which in appearance and performance resemble Barbados seedlings and in addition possess commercial resistance to mosaic disease.*

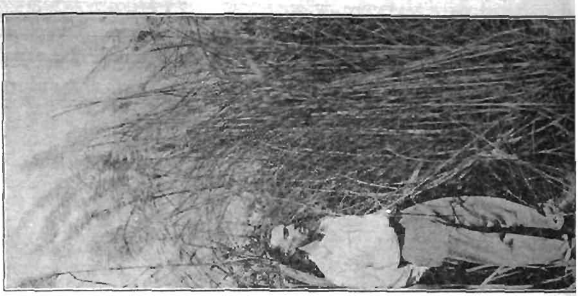
The process of breeding wild canes with noble canes so that the seedlings eventually produced resemble noble canes is known as nobilisation. It may be stated here that this has already been done in Java, resulting in seedlings such as P.O.J. 2725, 2714, and 2878. These possess the commercial immunity to mosaic disease of their wild cane ancestor but otherwise, in most respects, resemble the noble canes. They still possess, however, the short season habit of the wild parent. This is seen in an intense arrowing and general unsuitability to the growing season of the British West Indies.

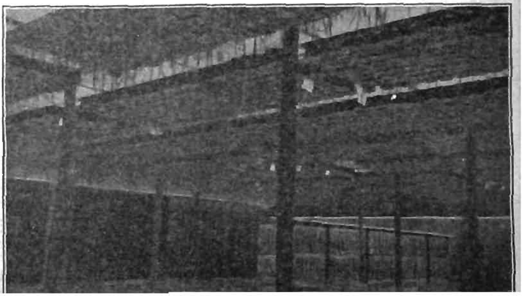
At the Central Sugar-Cane Breeding Station, nobilisation work for *severe mosaic disease areas in the fertile sugar-cane lands of Jamaica* is directed towards the production of early and late ripening seedlings of noble appearance, suited to the British West Indies growing season and *commercially resistant to mosaic disease.*

In respect of the seedling requirements of Jamaica, the last consideration concerns certain infertile soil areas. Soils with a high degree of salinity occur in parts of Vere and South St. Catherine. Further, soils with a high percentage of "shot" are present in sugar-cane lands in parts of Hampden, Long Pond, Georgia and Vale Royal. In addition mosaic disease is severe in cane in some of these Trelawny soils.

These infertile soils are unsuited to growing purely noble canes. *Breeding for these areas consists in nobilising wild species so that* seedling types are evolved which possess the maximum possible degree of noble-cane features cmmensurate with ability to grow well in these *unfavourable soils.*

At present, and with this end in view, several wild cane species are being nobilised with Barbados seedlings. Selections of these nobilisations will be despatched to Jamaica, where those of them which are





proved commercially resistant to mosaic disease, will be tested under the appropriate soil conditions.

*Sugar-Cane Breeding and Initial Seedling Selection.**

All breeding work is confined to three and a half acres of land on one plantation—Lion Castle—which is situated in the more elevated and higher rainfall district in Barbados. The conditions here are specially favourable to arrowing and fertile seed production.

(a) *The schemes adopted in breeding.*

The prospective parent varieties are grown in the above areas.

The parent varieties are chosen for the purpose of endowing to their progeny one or more desirable characteristics. These verieties may be classified in the following condensed form—

(1) *Saccharum officinarum.* This comprises noble-cane varieties.

In general these may be noted to possess characteristics suited to better soil conditions and to the varying lengths and natures of the British West Indies growing season. They are, as a class very good factory canes.

By a system of testing progenies, the following have been shown to give good seedlings—Ba 11569, B.H. 10 (12), B 417, B 603, S.C. 12/4. The value of others as producers of good seedlings is being continually asscertained.

(2) *Saccharum spontaneum.* Various forms of this species or its close derivatives are being used, e.g. Kassoer (the Java form), *Saccharum spontaneum* (the local Coimbatore form). The cheif object in using those forms is to incorporate their mosaic disease resistance and growth vigour into nobilised seedlings.

(3) *Saccharum barberi.* Two forms of this wild North Indian species are being used, i.e. Hemja and Hathooni. It is claimed elsewhere that these are particularly tolerant of unfavourable soil conditions, especially exposure to prolonged periods of water-logging. It is the intention to test this and to attempt to incorporate this feature—which is necessary in many British West Indies sugar-cane areas—into nobilised seedlings.

(4) *Saccharum sinense.* The Uba canes belong to this species. Two forms of Uba are being used in breeding, i.e. (a) Indian and (b) Hawaiian. The Uba canes are noted for their perennial vigour, their ability to grow well under severe soil conditions and their commercial immunity to mosaic disease. They are as a class, however, poor milling canes.

It is with a view to attempting to improve the last named feature that they are being crossed with Barbados seedlings.

(5) Various existing nobilised commercial varieties are also employed in breeding, e.g., P.O.Js, 213, 234, 2364, 2714, 2727, 2725, 2878, Co's. 213, 281, 290.

The breeding work may be stated as consisting of two main divisions, i.e, (1) purely noble-cane breeding and (2), crossing noble canes with wild species or their previous nobilisations. The noble-cane breeding is directed to providing seedlings for fertile sugar-cane areas which are free from uncontrollable diseases or pests. The nobilisation schemes are intended to provide seedlings for infertile soil areas or fertile soil areas which are dominated by some major disease or pest.

(b) *Breeding Technique.*

All breeding work consists in crossing (hybridization) and testing the merits of various crosses made. The latter serves to indicate the

value of each cross, and naturally directs subsequent work. New crosses are made each year.

To ensure accuracy in hybridization, it is necessary to be sure of the male—(pollen) sterility of the parent varieties to be employed as female parents. This is done by a study of the flowers in the arrows of each variety to be employed as a parent for the first season.

Having decided on the sex of each parent variety, potentially suitable combinations of pollen-fertile and pollen-sterile parents are arranged.

The arrows of each female parent are allowed to grow into an arrow lantern—four to eight arrows of each stool being thus directed. (q.v. illustration.) The arrows emerge within the pollen-proof lantern, and their flowers can be fertilized by introduced pollen only.

The pollen from the male parents is derived by collecting arrows prior to any appreciable anther (pollen-sac) dehiscence, i.e., between 5 a.m. and 6.30 a.m. daily. The arrows of each male parent are kept distinct in rolled stiff papers in a field laboratory and allowed to continue opening until about 7.30 a.m. The arrows from each male parent are then taken and shaken over the appropriate female parent arrows in the lanterns, at the rate of one male per female arrow in the lantern. (The operation is illustrated in this article). In any one morning, pollination is completed by about 8.30 a.m.

This pollinating (or dusting) of the arrows in each lantern is continued during each morning from the commencement of flowering until its cessation. The flowers in any one lantern may be pollinated for 20-30 mornings. The entire breeding season lasts from mid-October to mid-December.

In all, eighty lanterns are employed and approximately sixty crosses made. The fertility of different crosses show appreciable differences. With fertile crosses as many as 7,000 seedlings may be obtained from one lantern.

(c) *Harvesting and Sowing the Fuzz.*

Each arrow is collected when its fuzz is ripe. Each is placed in a bag and identified by labelling.

The arrows are air-dried and in three days from harvesting, the fuzz is stripped and sown in boxes; the identity of the arrow fuzz being still retained in the boxes (illustration). One arrow may give fuzz sufficient to sow one to six boxes, depending on the amount of fuzz. Germination counts are made in the boxes and thus the effect on fertility of the cross, the arrow and time of pollination can be established.

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* A detailed account of breeding and initial stages in seedling selection is given in Bulletin No. 6 of the British West Indies Central Sugar-Cane Breeding Station.

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(d) *Seedling Potting.*

During January and February the seedlings are transplanted into six-inch pots. The latter are placed in concrete cisterns, where they are watered at intervals by flooding the cistern. In all 20,000 seedlings are potted (see illustration). The cross populations are kept distinct in the cisterns.

(e) *Seedling Field Nursery.*

During April, approximately 12,000 of the most vigorous potted seedlings are transplanted into a field nursery at Codrington Experiment Station. This nursery serves to provide planting material for the normal West Indies planting season in October and November. At the same time, at the latter planting, the total number is reduced to to 10,000 by eliminating obviously poor-looking seedlings. In the nursery, the plants are spaced closely and the cross populations kept distinct.

(f) *First Year Seedling Test.*

Approximately 10,000 seedlings are planted October and November and cut in the crop of the next year but one.

This total is divided into two main groups, i.e., (1) proven crosses and (2) experimental crosses. The former consists of seedlings from the pre-determined best crosses between noble varieties, the latter chiefly of nobilised seedlings. The proven crosses are divided into (a) an early group and (b) a late group. These groups consist respectively of seedlings derived from crosses suited to giving early and late maturing seedlings.

Approximately 6,500 proven cross seedlings and 3,500 experimental cross seedlings are planted in any one season. During crop the early proven cross group is reaped in January (early), the experimental cross group in March (mid-crop) and the late proven cross group in May (late).

Selections in each group are based on all round characteristics of seedlings,—always having in mind the particular requirements of each class of seedling being dealt with.

About forty seedlings are selected from each of the early and late proven cross groups and approximately eighty from the experimental crosses.

After selection each seedling is subjected to multiplication and gumming disease resistance tests. At this stage any obviously poor or indifferent seedling or seedling susceptible to gumming disease is eliminated.

(g) *Second Year Tests.*

First year seedling selections which survive the gumming disease tests and elimination during the multiplication stage referred to are tested in second year tests in Barbados.

The *proven cross selections* are tested under environments, one of which provides a long favourable growing season, the other a short favourable growing season. The early and late first year selections are still kept distinct.

These are tested against appropriate standard noble-canes and cuttings of selections (on the average four or five in number) are despatched to the Central Plant Quarantine Station in Trinidad for quarantine prior to despatch to the various Islands. While being quarantined these seeedlings are further tested in Barbados and from the results of these tests a forecast is made as to the possible suitability of each to thick-canegrowing areas in the British West Indies.

The *experimental cross selections* are given a second year test in Barbados to test their general value. It is admitted that in the case of those which are selected for purposes of suiting infertile soil conditions, it is perhaps unsuitable to test them in Barbados. This test, however, is merely to establish the general value of each seedling, so that only seedlings of reasonably good general performance may be despatched for quarantine and eventual test under the particular soil conditions for which each was selected.

The experimental cross selections contain highly nobilised seedlings derived from crossing Barbados varieties, especially with P.O.Js. 2364, 2725 and 2878. These selections are thick-cane types and it is hoped that a few at least will show, in the second year test in Barbados, suitability to British West Indies growing seasons. These would be despatched by way of the Central Plant Quarantine Station to Jamaica for mosaic disease resistance tests prior to inclusion in seedling trials in Jamaica.

It is intended that all seedlings despatched to Jamaica for purposes of test in severe mosaic disease areas should first be tested for their reactions to the disease. Those seedlings showing susceptibility would be eliminated from further test.

Further tests in Jamaica would be directed towards ascertaining for recommended appropriate testing areas, the field and factory values of the various seedlings of each class forwarded.

EXPLANATION OF PHOTOGRAPHS.

Figs. 1 and 2.—Breeding plots at Lion Castle. Types of varieties used in breeding.

Fig. 1. Stool of Indian wild cane *Scaccharum spontaneum.*

Fig. 2. Stool of North Indian cane *Saccharum barberi,* var. Hathooni.

Fig. 3. Breeding plots at Lion Castle. View of arrow lanterns in position.

Fig. 4. Breeding plots at Lion Castle. View of dusting (pollination).

Fig. 5. View of the cistern at Codrington Experiment Station. Germination of the sowings in boxes. The boxes of sowings from the various crosses are kept distinct.

Fig. 6. View of seedlings in the pot stage. Note the segregation of cross populations into distinct and labelled blocks.

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Cedar Doors, Sashes, Cornice, and Mouldings at the following prices :

SASHES, 2' 4" x 4' 6"		10s. per pair
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SQUARE HEAD GLASS DOORS, 3' x 7'		36s. per pair
" " " " 3' x 6' 6"		34s. " "
CIRCLE HEAD GLASS DOORS, 3' x 7'		40s. " "
" " " " 3' x 6' 6"		38s. " "
OTHER SIZES ARRANGED FOR, ALL 1¼ FINISH.		
P. P. CORNICE, 3"	10s.,	12s. per 100
" " 4"	13s.,	14s. " "
CAVETTA MOULDING, 1½"		7s. " "
" " 2"		9s. " "
BACK MOULDING 2"		8s. " "
" " 1½"		6s. " "
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P. P. HAND RAIL, 3' x 4'		45s. " "
P. P. FOOT RAIL, 2" x 4"		40s. " "

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RABBITS FOR FOOD AND PROFIT.

By HARRY E. HEINKEL, California, U.S.A.

(Continued.)

FEEDS AND FEEDING.

What to Feed.

It should be expected of feed that it do more than merely sustain life. It must provide the rabbit with health and vigor, growth and reproduction qualities, fine meat texture and flavour, and a good coat of fur. The fact that a rabbit will eat one thing or another is no indication that it should be incorporated as an article of diet. Rabbits may be maintained on an all-green feed diet, but the results are far from favourable. Some producers advance the theory that the domestic rabbit will thrive on a diet similar to that of the wild rabbit. Serious reflection will prove such a theory ridiculous and impractical. The wild rabbit breeds twice a year, the domestic rabbit four times a year; the wild rabbit has a litter of two to four, while the domestic rabbit will maintain a litter of eight. The best results can only be secured by using the best feed obtainable.

What to feed is largely governed by local conditions as to feed obtainable, prices, and results. The producer should experiment with various diets and study the results. An accurate cost study will determine which diet brings with it the most favourable results.

Perhaps one of the most common diets is that of alfalfa hay, rolled barley, and greens. The cost is moderate and so are the returns. I believe that every producer has at one time or another used this diet, and discarded it in favour of a better. However, it might be well to use this diet as a basis of comparison with other combinations.

The rabbit being of a nocturnal nature, hay should always be fed in the evening, regardless of what other feed is used in conjunction with it. The longer time required to dispose of the hay will keep it occupied and contented the greater part of the night. In the morning feed the rolled oats, or whatever grain is used. And at noon feed greens.

Extreme caution must be used in feeding greens as diarrhea may result. Very young stock should never be given greens of any kind. Carrots, tops and root, are the best and are most extensively used. Eliminate the tops for the young. Feeding greens at noon has a cooling effect, but the greens must not be heated by the sun nor should they be wet or damp.

Carefully examine all feed used to see that it is clean, and never throw it upon the hutch floor. Have and use receptacles for all feed, and maintain them in a sanitary condition. Musty hay, stale greens dirty water, and feed eaten off the hutch floor bring disease and disaster.

A feed which is fast gaining popularity among rabbit producers is known as "pelleted" feed. These pellets are scientifically prepared and comprise a balanced ration. There are two varieties; one an all-grain pellet consisting of various grains, minerals and cod liver oil, and is fed with alfalfa hay; the other is a combination pellet and contains alfalfa in addition to the grains, and accordingly no other feed is used with it.

The principal advantages in using a pelleted feed are that, if a good quality is used, they are economical and reduce feed waste to a

minimum; they facilitate feeding, and they provide a balanced ration of such ingredients which, were the producer to buy them separately, he would not be apt to use them.

The disadvantages of pelleted feed are that the purchaser must rely upon the manufacturer's statement as to their content; the purchaser does not know whether or not only first quality grains are used, and in such localities where rabbit meat prices are very low the higher costs of pelleted feeds may make their use prohibitive. Another important factor is that the rabbit fed entirely on pellets does very little chewing and so lessens the flow of digestive juices. This is particularly true where an all-in-one pellet is used.

In theory the use of an all-in-one pellet appeals to the producer. It eliminates the hay problem, which at times is a difficult one, and it certainly reduces the time required in feeding. In actual practice, however, the all-in-one pellet quickly displays its disadvantages. In addition to the lessening of the digestive juices, the feed is quickly consumed and in the case of the evening ration it leaves the rabbit with nothing to occupy itself through the night, with the result that it becomes restless and causes considerable commotion by scratching the hutch equipment and wire. Also, it will be found unsuited as feed for the young when they first come out of the nest and begin to eat.

By personal experiences I have found the all-grain pellet best suited to the needs of the commercial rabbitry. While the market affords considerable choice in the matter of pellets, I recommend that only the very best be used, and that the manufacturer's analysis be carefully studied after which frequent tests should be made, and cost records should always be maintained.

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Tried the REST

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GINGER SNAP

They cost only 6d. per Half-pound packet.

Manufactured by	Selling Agents:
The Jamaica Biscuit Co., Ltd.	Lascelles deMercado & Co., Ltd. and
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Being most familiar with my own feeding methods I shall present them for the reader's consideration. At 7 o'clock, promptly, every morning I feed all-grain pellets in amount varying according to the needs of the rabbit. Next, water crocks are cleaned and re-filled. At 11 a.m. the water supply is inspected and attended to as needed. At 2 p.m. carrots are given—tops and roots to all stock without young, and roots cut in small pieces to all does with young. Carrots, however, are only fed three times each week. At 5 p.m. the alfalfa hay for the evening feeding is inspected, chopped (to chop the hay reduces waste), and is fed to all the stock promptly at 6 p.m., and water supplied as required. At 9 p.m. a final inspection is made to see that all have sufficient water for the night.

Vitamins and Minerals.

The vitamins A, B, C, D, E, F, and G are necessary in the diet, and the absence of one or more will result in an unhealthy rabbit.

Vitamin A is necessary for health and growth. The absence of it may result in diseases of the eyes and respiratory tracts. It is most prominent in cod liver oil, sardine oil, and greens.

Vitamin B complex, also known as vitamin B and includes other vitamins. This is found in yellow corn, wheat germs and wheat middlings.

Vitamin C prevents scurvy in certain animals but which does not involve the rabbit. It is most common in greens.

Vitamin D is found in cod liver and sardine oils. Its lack will result in rickets and hinder the growth of bones and teeth. The sun is an excellent source of this vitamin, but producers in the warm climates cannot avail themselves of that source as they must provide all possible shelter from the heat. Therefore, the rabbit must be provided with this vitamin in its diet. The manufacturers of most pellets include cod liver oil among the ingredients used.

Vitamin E is necessary for the proper functioning of the reproductive system. It is found in alfalfa (dry and green), wheat, and other greens.

Vitamin F is very essential for nursing does. It is also necessary in the avoidance of irritability, nervousness, and loss of appetite. It is most prominent in yellow corn, wheat, corn germ meal, and yeast will assist in its production.

Vitamin G is necessary for proper growth and health. It is considered the antipellagric vitamin. This vitamin is found in milk, green and dried alfalfa, green grasses and clover, and in yeast.

In the matter of minerals rabbit salt spools are most commonly used. However, as in the matter of vitamins, the producer who uses a good grade of pellets need not be overly concerned other than to be sure that the pellets he uses contain a sufficient amount to balance the ration. Alfalfa hay is high in mineral content and will meet the normal requirements of the rabbit.

The producer who keeps goats and has a larger milk supply than his requirements demand might do well to give some of it to his rabbits. It is excellent for young growing stock, although it is difficult to get them to drink it. I have experimented with it by giving it to certain ones in a litter and in every instance found that they far exceeded in weight those that did not receive it in their diet. Some will not drink it no matter what efforts are resorted to, others can be induced to drink by gently dipping their noses into it or by moistening the finger in the milk and then lightly placing it over their mouth. The producer who feeds a crumbly mash would do well to use goat's milk instead of water.

The question of how much to feed is an important one. The answer involves consideration of the kind of stock kept and the kind of feed used. And too, I doubt if it is possible to find two producers who feed exactly alike even though they may use the same kind of feed. Some use magazine feeders which are filled once a week thus permitting the rabbit to eat all it wants. However, most producers feed according to the rabbit's weight and requirements. Some manufacturers of pellets, in order to stress the economic value of their product, state an amount too small to bring about the desired results. Agricultural institutions which have made a study of rabbits, state that the correct amount to feed is one ounce per pound live weight of the rabbit, and of which hay should constitute sixty per cent. Thus a ten pound rabbit should receive four ounces of grain and six ounces of hay every twenty-four hours. Special allowances must be made for the bred doe, the nursing doe, and the doe with young who are beginning to eat. Greens, since they contain considerable moisture are not included in the above weights as their dry weight would be but a small fraction of an ounce. I have used the above weight in feeding for over two years with good results.

On the day a doe is bred she is weighed and this weight is used as a basis for feeding until she is bred again and a new weight is established. Every hutch is plainly marked with a fractional figure to indicate the amount she is to receive. For example: a 12 pound doe would have on her hutch the fraction 5/7, indicating that she is to receive 5 ounces of pellets and 7 ounces of hay. These amounts are slightly increased after she is with young. The feeding figure should be placed in large figures on the hutch door so that it can be quickly seen and changed as necessary.

By feeding a definite amount the producer can quickly discover any rabbit which fails to eat or suffers a loss in appetite and thus make an investigation as to the cause. It will also assist him in maintaining feeding costs per doe and litter.

Rules to follow in feeding are: establish a regular time for feeding and then adhere to it strictly. Be as particular of the rabbit's feed as you are about your own. Use the best feed obtainable at the price you can afford to pay. The rabbit eats most of this feed at night, give him the largest portion in the evening. See that the water crock is always filled with clean, fresh water, and as the young grow it is a good plan to add another water crock to take care of the additional requirements.

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PURE BRED WHITE LEGHORNS PLYMOUTH ROCKS
BLACK MINORCAS RHODE ISLAND RED

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ANDREW AGUILAR, Phone 3059.

MARKETING NOTES.

(*Extract from Weekly Fruit Intelligence Notes, 30th October*, 1935.)

CAMEROONS.

The *Vibran*, which is due at London on 5th November, is advised as bringing 36,000 bunches of bananas from the Cameroons for London and 22,000 bunches for Rotterdam.

(*Extract from "Weekly Fruit Intelligence Notes," 30th October*, 1935.)

TRINIDAD.

An official report on the citrus fruit crop in Trinidad states that it is estimated that between 70,000 and 80,000 boxes of grapefruit will be handled by the Packing House of the Co-operative Citrus Growers' Association this season, of which approximately 50,000 boxes are likely to be exported.

Exports of grapefruit from Trinidad during the 1934-35 season amounted to 48,583 boxes, of which about 90 per cent. was shipped to the United Kingdom.

(*Extract from "Weekly Fruit Intellegence Notes," 23rd October*, 1935.)

BRITISH HONDURAS.

An official report on this season's citrus fruit crop in British Honduras states that the production of grapefruit is estimated at 20,000 cases and that of oranges at 1,500 cases. The present area under citrus fruit is about 1,000 acres, of which grapefruit occupies 770 acres. Last year the acreage under grapefruit was reported to be 680 acres.

The exports of raw citrus fruit from British Honduras during the 1934-35 season totalled 16,100 cases of grapefruit and 900 cases of oranges. Of these quantities, 8,200 cases of grapefruit and 100 cases of oranges were shipped to London, and 7,300 cases of grapefruit and 500 cases of oranges to Canada. Most of the grapefruit exported was of the Marsh and Duncan varieties, shipments of these to London totalling 4,600 cases and 3,300 cases respectively. All the oranges sent to London, and most of those to Canada, were Valencias.

LOCAL PRODUCE PRICES.

Annatto—Prime, red seed	19/- delivered Kingston
Cocoa—Ordinary ..	20/- " "
Fair Fermented	20/- " "
Estates Fermented	21/- " "
Honey—Pale ..	2/- per gall. delvd. Kingston
Light ..	1/9 " " "
Dark ..	1/6 " " "
Kolanuts—Sound quality, well cured	6/- delivered Outport 7/- delivered Kingston
Lime Juice—Good, green, top-pulp	1/3 per gall. delvd. wharves outports, in sound phns.
Sarsaparilla—Well cured, red roots	42/- delivered Kingston.
Wax—Pure and clear ..	8d. per lb. delvd. Kingston.

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ANNOUNCEMENT.

The Government nurseries are now in a position to make very prompt supplies of citrus plants. It will therefore be unnecessary for parties desirous of obtaining citrus plants to book with deposit of 2/6 as the previous regulations required. Any plants now being ordered should be accompanied by remittance to cover the cost, which remains as it was before—3d. per plant for the first 25 and 1/- each for any quantity after that number. It is also unnecessary to book through the Jamaica Agricultural Society as matters will be expedited by remitting direct to the Department of Science and Agriculture.

CITRUS IN POTASH-DEFICIENT SOILS DEVELOPS ABNORMAL CONDITIONS.

Tests show that citrus develops abnormal conditions (symptoms of potash deficiency) such as dead extremities of branches; irregular, pale-colored bronzed leaves; as well as large and stitched leaves; and drooping branches under conditions of very low potash levels, says Dr. O. C. Bryan, Florida College of Agriculture, in *Florida Grower*, Vol. 43, No. 1.

SPRAYING AND LIMEWASHING.

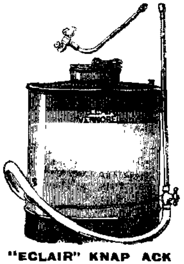
The ORIGINAL KNAPSACK SPRAYER.

This is the standard type of Knapsack Sprayer, and can be used for almost all spraying work. It is fitted with a Double Nozzle (which can be converted into a single nozzle), a Special Bent Tube for spraying underneath the leaves of potatoes, etc., Spare Jets and Strainer, complete in box.

Special models are made for use with Lime Sulphur, Liquid Acids, etc. For Limewashing an Agitator is fitted and lengthening lances for spraying up to 20 ft. are made.

All types of Wet and Dry Sprayers made and Stocked.

1¾ pints to 130 gallons.
Prices from 10/3 to £72.



"ECLAIR" KNAP ACK SPRAYER.
Capacity 3¼ gallons.
Price complete 51/6.

Catalogues and Full Particulars from:

COOPER, PEGLER & CO., LTD.,
24 / 26a Christopher Street, London, E. C. 2.

When corresponding with Advertisers, mention the Journal of the

JAMAICA AGRICULTURAL SOCIETY.

(*Extract from the Agricultural Gazette, New South Wales, June 1, 1935.*)

THE AGRICULTURAL BUREAU'S PAGE.

WHAT IS THE BUREAU?

A Voluntary Organisation to Develop Agriculture.

The Agricultural Bureau is a voluntary organisation devoting its energies towards the development of agriculture. It is organised in large part by its own enthusiastic members, whose efforts in that direction are co-ordinated by the official organiser appointed by the Department of Agriculture. The organisation is sponsored by the Department of Agriculture, but is not given any monoply so far as the services of the Department are concerned. Through the organisation, many more people have been placed in a position to obtain a practical insight into the work that is being done on behalf of the State by the Department of Agriculture than would otherwise have been possible. It is one cha-channel which offers a personal service of advice.

MAKING SERVICES AVAILABLE.

There are innumerable difficulties confronting the primary producer at every angle of his business. On practically all of these difficulties the Department, through its various institutions and its field, laboratory and literary activities, is in a position to give sound and practical advice. To do this economically, however, some organisation of the farmers in a community is necessary. The value of the advice depends upon the the extent to which it is sought and adopted. The specific job of the Agricultural Bureau is to organise to make known and available the services that any community may seek in the way of advice and suggestion from the Department.

Many of the most earnest and efficient of the farmers of the State are officers and members of the Agricultural Bureau—officers not with any idea of personal advancement other than that which they hope the service rendered by the Bureau will make possible for them, just as it does for every farmer sufficiently interested to pull his weight with them in the organisation. The co-operation of the Department is offered with the object of making these organisations more efficient. The State, recognising the services so rendered, gives the help that is needed to make them strong and helpful institutions.

APPRECIATION OF EXPERIMENT WORK.

The Agricultural Bureau, as a movement, attaches a very real importance to such State Institutions as Hawkesbury Agricultural College and the various Experiment Farms. The organisation has done much to bring its members into closer and more personal contact with all of these institutions, and has developed a greater appreciation of the work they are doing, while through the annual conference at the College and the attendance of its members at the Winter School there, it has made thousands of farmers feel a close personal attachment to the College, and has developed a greater respect for the work it is doing and for its graduates.

But valuable as these institutions undoubtedly are, the organisation of the Agricultural Bureau by the Department of Agriculture is but an indication of the principle that whole of the work of developing agriculture in the State could not be concentrated in them. Something

is left—indeed, much is left for the leaders of agriculture in the various parts of the State through co-operation with the Department and by means of the voluntary organisation of the farmers to do something that will need their initative, their resourcefulness, and their industrious attention, something that will interest them, something which when done will add definitely to the value of the efforts of the Department. Achievement will be reflected in a higher standard of efficiency. It is the desire to do these "somethings" that is the mainspring of the Advisory Council of the Agricultural Bureau. It is that desire which prompts a man to seek election by the branches to a seat on the Advisory Council.

Self-Help and Organised Effort.

The co-operation between the Department and the branches of the Bureau is an expression of the principle that through self-help and organised effort the people may best serve their interests in particular and the interest of the State in general. Such a voluntary organisation seeks to emphasise that the work of developing agriculture is not just in the hands of those who are paid to do the job, whether paid directly through their own funds or indirectly through Government service, but is a matter requiring the individual and organised co-operation of the producers themselves.

Voluntary organisations are the life blood of democracy—the foundation of all our institutions. The Bureau has reached a stage of development which makes it recognised as one of the big voluntary organisations—all of which are seeking to serve and promote, through agricultural interests, the national well-being.

Ed. Note: An organisation nearly identical to our Society.

SAVE EVERY CALF

with

O.M. FRANKLIN BLACKLEG BACTERIN

at

Sixpence per dose.

At present prices the loss of even one calf is a serious blow to profits....
therefore

SAVE EVERY CALF

H. L. ARNETT -- -- Falmouth, Ja.

PIG INDUSTRY.

Editor's Note:—The problem of the proper feeding of hogs in Jamaica has been one that has never been seriously gone into. Hitherto our pig industry has been entirely viewed from the standpoint of the consumption of waste material. This attitude of mind has not helped the industry any, because the animals are invariably at some period of their life deprived of a well balanced ration.

It will be noted from the analysis given of the Chufa Nut that it is very high in oils and carbohydrates, about two-thirds as high in proteins as corn is, and it is our opinion that fed with some leguminous supplement such as Velvet beans or any other cheap pea, and also a small mineral supplement, that a very cheap and excellent hog ration would result.

We are expecting that small quantities of these nuts will shortly be available at 1/- per quart.

CHUFA OR EARTH ALMOND. (Cyperus escutentus)

By Ansell Hart, Esq.

This is a hog fattening food of a pleasant nutty flavour. Each well developed seed or nut being about the size of a shelled pea nut. It is used and esteemed in the Southern States of the United States of America. It has recently been tried in Jamaica and the indications are that it will prove a valuable addition to the local hog dietary.

The writer planted nuts at an elevation of about 2,500 feet above sea level in light loamy soil in June, and they came to maturity in October, but owing to the rains were not reaped until November. It is believed that the nuts will grow and flourish in any light sandy soil from the sea coast upwards. Under the conditions above indicated, three quarts of the nuts reproduced themselves about thirty-fold. The nuts are in the form of nodules attached to the roots of a grass, which when green is eaten readily by hogs and when withered makes a thick resilient bedding for live stock. The time for reaping is when the grass withers. Its method of planting appears to be to set each seed a foot apart in rows three feet apart.

The nuts may be reaped by hand or the hogs may be turned in to do their own reaping. It is advisable not to plant the nuts among cultivation as they promise very persistent growth and reproduction.

Analysis of food value shows:—

	Percent.
Water	10.54
Proteids ..	5.68
Oil	26.72
Carbohydrates ..	46.86
Crude Fibre ..	8.34
Ash	1.86
Total	100.00

WANTED.

Wanted a large, heavy, meat type billy goat; must not be aged.

(Extract from The Allahabad Farmer, September, 1935.)

The need for Agricultural Education.

Agricultural education is an essential necessity for the improvement of our agriculture and for the betterment of our pe santry. It is no exaggeration to say that so long as ignorance and illiteracy prevail in our villages and barely six per cent. of the population can read and write, all talk about rural progress is futile. No one can deny the fact that the absence of wide spread literacy and a suitable system of agricultural education are largely responsible for many of the ills and evils we deplore. "Agricultural instruction indeed enables the cultivator to understand the scope of scientific discoveries and the means of applying that. It enables him to calculate his operations to shield himself from frauds to which he may be exposed. It gives him the certainty after he has become acquainted with the elements of the soil he tills of using chemical fertilizers, the implements and processes which shall result in increasing his production. It will diminish the cost thereof and enable him effectually to compete with foreign rivals. By its means he will be able to draw with certainty upon the sources of credit which are open to him, to inspire confidence to lenders and give confidence to his landlord as regards the use he may make of the property under his charge. In this century of extreme competition the agriculturist can only thrive if in working the soil he adopts scientific methods. There is no profession more based on science or more dependent on scientific knowledge than agriculture.

Clear is then the need of a system of agricultural education for the rescue of the Indian peasant. "Illiteracy aggravates indebtedness,

YOUR GUARANTEE OF PURITY.

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"RED STRIPE" PRODUCTS.

BEER, STOUT, WINES, AERATED WATERS.

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ASK ALWAYS FOR THIS BRAND.

GEORGE & BRANDAY,
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Have been Buyers of Agricultural Produce,

COFFEE, COCOA, PIMENTO, ETC., HARDWOOD, LIGNUMVITAE, EBONY, SATINWOOD, DYEWOODS, LOGWOOD, FUSTIC, GOATSKINS, CATTLE HIDES, BITTERWOOD, SARSAPARILLA
FOR OVER 50 YEARS.

CORRESPONDENCE INVITED.

And for primary Education too. promotes improvidence and extravagance, impedes the progress of agriculture, and what is more serious than anything else, prevents that mass awakening without which no reform can be permanent." "When a population is uneducated it is not progressive but stagnant. Its standard of living is low and has no tendency to rise. Any increase in their income tends to increase their number, and not to raise their standard of living or comfort." In order to rescue a long struggling and long-suffering peasantry from the present degradation there must be widespread education in the country which will transform it into an industrious and enterprising peasantry. Widespread primary education with a bias for agriculture is a *sine qua non* for the rescue of our agriculture from absolute stagnation and the peasants from eternal damnation.

(*Extract from The Allahabad Farmer, September*, 1935.)

THE INSTRUCTIONS OF M. TIRARD, THE FRENCH MINISTER OF AGRICULTURE TO THE TRAVELLING AGRICULTURAL LECTURERS OF FRANCE.

"Your mission is to keep the cultivators informed respecting modern discoveries and new inventions of economical and advantageous application, so as to let them be ignorant of nothing which it is to their advantage to know but to lead them forward in the general movement of progress they participate to so small an extent owing to their isolation. You will have to instruct them as to what reforms they may introduce in the processes of cultivation, in the selection and feeding animals. You will also call their attention to the preparation of manures, their utilisations, the way in which to increase their quantity by making use of fertilizers which are too often lost in the country districts. You will show to them the advantages which arise from a good choice of seeds and of the varieties of plants cultivated and more particularly how to extirpate weeds which take the place of useful plants, how to combat parasites of all kinds which ravage the crops, etc., etc. And you will develop in them the love of progress and that spirit of initiative which causes them not to expect all from circumstances or in due time, but from their own efforts. You take care to cite as example the results obtained by enlightened cultivators who employ good method. And you should in short exert yourself to describe in each locality what agriculture ought to be, and after examination, you should indicate what should be done. In addressing cultivators and practical men who have the knowledge for themselves which tradition gives—that is to say, the slow and patient observations of facts from generation to generation—you should dwell only upon well-known truths and principles clearly proved by science.

LUMBER! LUMBER!! LUMBER!!!

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(*Extract from the Agricultural Gazette, New South Wales, June,* 1935.)

THE MINERAL REQUIREMENTS OF MILKING COWS.

The following table gives some idea of the enormous amount of mineral elements moved from the soil by grazing. The milk of twenty cows yielding 1,000 gallons each annually, contains the equivalent of approximately:—

1,120 lb. Nitrogen.
380 lb. Phosphoric Acid = 1,900 lb. Superphosphate.
340 lb. Potash = 1,700 lb. Potash Fertiliser.
2,000 lb. Lime.

Of a cow's entire weight, 4½ per cent. consists of mineral matter. A newly-born calf weighing 80 lb. contains approximately 3¼ lb. of vital minerals, all of which came from its dam.

An ordinary cow produces 800 gallons of milk per annum, and this contains 56 lb. of mineral matter, which is more than is found in the entire frame of a 1,200 lb. bullock that has taken three or four years to grow, yet the dairy cow produces this yearly in addition to what goes to make her calf, as before mentioned. Each ten gallons of normal milk contains ¾ lb. of the most valuable form of bone building mineral matter —which makes it so valuable for children and young animals generally.

During heavy milk production it is impossible for the cow to get sufficient mineral matter from untreated pastures. Thus, if the animal is not fed a large amount of rich mineral concentrates, she is compelled to draw on her body reserves, calling first upon that in the bone, and then upon the minerals in the blood. In the first instance this leads to a spongy, weak bone, and if this continues long the animal soon becomes unthrifty and a prey to various forms of disease due to a lowered resistance capacity. Disease is the extreme effect of mineral deficiency, and it is probable that there are degrees of deficiency which cause a serious decrease of production as far as dairying is concerned.

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BEE INDUSTRY NOTICES.

(Extract from the Jamaica Gazette, September 26, 1935.)

No. 725.—With reference to Government Notice No. 877, published in the Jamaica Gazette Extraordinary of the 15th November, 1934, the following Order has been made by the Governor under Section 3 of Law 9 of 1918, "The Protection from Disease (Bees) Law 1918."

"*The Protection from Disease (Bees) (Foul Brood) Order*, 1935."

Whereas it has been reported to the Governor that "Foul Brood Disease of Bees" is now prevalent in this Island;

And whereas it is deemed expedient:

(a) to prescribe measures to be taken for the treatment of the said "Foul Brood Disease of Bees" by owners or persons having the charge or management of Apiaries within this Island;

(b) to regulate the duty of persons appointed to carry out the provisions of this Order;

(c) to direct the destruction of such Apiaries infected or suspected of being infected with the said "Foul Brood Disease of Bees" and

(d) generally to make provision for preventing the spread of the said "Foul Brood Disease of Bees."

Now therefore, I, the Governor in exercise of the power conferred by Section 3 of the Protection from Disease (Bees) Law, 1918 (Law 9 of 1918), (hereinafter called "the said Law") and of all other powers in this behalf hereunto enabling do hereby order and direct as follows:—

1. Every person having the charge or management of any hive of bees or Apiary within the Island shall within thirty days from the date of this Order report in writing to the Director of Agriculture, Kingston Post Office, the site and the number of hives which are in his possession, unless he has already so reported within a period of nine months immediately prior to the date of this Order.

2. No owner or person having the charge or management of any colony or hive of bees or Apiary within the Island shall keep or maintain any colony of bees in any hive which is *not equipped* with movable frames for the combs and/or in any manner or condition which prevents or obstructs the examination of the brood and combs of such colony for the purpose of ascertaining whether or not the same is infected with "Foul Brood" or other Disease of Bees.

3. When any hive of bees is found to be infected or is suspected to be infected with the Foul Brood Disease of Bees, the owner or person having the charge or management of such hive of bees shall immediately notify the Director of Agriculture in writing and forthwith entirely destroy the same with fire. The stands or other fixtures on which such hives have been kept shall also be burnt with fire or tarred completely with hot tar.

4. The owner or person in charge or control of an Apiary within the Island shall on the publication of this Order in the Jamaica Gazette forthwith examine the brood nest of each hive and destroy all hives wherein "Foul Brood Disease of Bees" is present in accordance with this Order and shall thereafter examine each hive at least once in every two months and continue to destroy infected hives in the manner hereinbefore provided.

5. A Person appointed by the Governor to carry out the provisions of the said Law or any Order issued thereunder is empowered to destroy forthwith any colonies of bees and the hives or parts thereof which he finds on inspection to be infected with "Foul Brood Disease of Bees."

6. No bees, queen bees, hives of bees, honey or wax within the parishes *of Kingston and St. Andrew, nor any materials that have been used in connection with such hives of bees shall be removed from one place to another by any person whomsoever except under a permit in writing* from the Director of Agriculture first had and obtained.

7. When in the opinion of the Director of Agriculture any Apiary by reason of its infection with Foul Brood Disease of Bees is a menace to the health of any other Apiary in the same locality or the general welfare of the beekeeping industry of the Island, the Director of Agriculture is hereby authorised and empowered to destroy such Apiary in in such manner and under such conditions as he may deem fit and proper.

8. The Protection from Disease (Bees) (Foul Brood) Order 1934 shall be and is hereby rescinded.

9. This Order may be cited as "The Protection from Disease (Bees) (Foul Brood) 1935."

Made by the Governor at King's House this 20th day of September, 1935.

EDWARD DENHAM,
Governor.

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DEPARTMENT OF SCIENCE AND AGRICULTURE.

JAMAICA.

THE MOSAIC DISEASE OF SUGAR CANE ORDER, 1925.

Order under Section 2 of the Protection from Disease (Plants) Law, 1925, (Law 10 of 1925).

Whereas it is provided by Section 2 of the Protection from Disease (Plants) Law, 1925 (Law 10 of 1925) that it shall be lawful for the Governor from time to time by Order to be published in the Jamaica Gazette to prescribe the measures to be taken for the treatment of any infectious plant disease by the owner, occupier or person having the charge or management of any land, whether the land shall or shall not have been declared to be infected or suspected of being infected with plant disease and generally to make provision for the purpose of preventing the introduction and spread of plant disease or of any particular plant disease named in any other Order:

And whereas the Mosaic Disease of Sugar Cane is a plant disease which the Governor in Privy Council has declared to be an infectious plant disease and notice of such declaration has been published in the Jamaica Gazette..

Now therefore, the Acting Governor is pleased to order and prescribe as follows::

1. The Occupier or other person having the charge or management of any land on which there are sugar cane plants infected with the Mosaic Disease of Sugar Cane, whether the land shall or shall not have been declared by Order published in the Jamaica Gazette to be infected or suspected of being infected with plant disease, shall take the following measures for the treatment of the said Mosaic Disease of Sugar Cane:

(A) *In the case of diseased stools of Sugar Cane in plants and ratoon canefields established before the 15th September, 1920, or within three months thereafter.*

(A) 1. If less than ten per cent. of diseased stools are present in a young plant or ratoon canefield where the period of growth of the sugar canes has been less than four months, affected stools shall be pulled out or dug out completely and allowed to wither and die.

(A) 2. If the number of diseased stools amounts to or exceeds ten per cent. in any canefield treatment as prescribed in Rule 1 supra shall not be enforced.

(A) 3. If the canes affected with the disease are of four months growth or more, Rule 1 supra shall not apply.

(A) 4. No cane-tops or other seed-pieces from canefields affected with disease to an extent in excess of ten per cent. shall be removed from any such cane fields for the purposes of planting after the publication of this Order.

(B) *In the case of diseased stools of Sugar Cane in plant and ratoon canefields which have been established after the 15th December, 1920.*

(B) 1. All diseased stools in young plants or ratoon fields of sugar cane of less than four months growth shall be pulled out or dug out completely and left to wither up and die.

Provided that in any case where the incidence of disease is in excess of one diseased stool per ten stools in any canefield the owner or occupier shall be entitled to appeal to the Director Agriculture who shall decide what treatment, if any, shall be carried out.

(B) 2. Rule A.4. (supra) as to the removal of cane-tops or other seed-pieces from infected fields shall continue to apply at all times during the existence of this Order.

DEFINITIONS.

In this Order the term "*Established*" shall be taken to mean that the oldest shoots of sugar cane in the field are not less than six inches in height.

"*Diseased stool*" means a stool of sugar cane with one or more diseased shoots or stalks arising either from a single seed-piece or from one root of a ratooning sugar cane. The age of a field of young plant-canes shall be reckoned from the time when the planting of the seed-pieces was completed.

The age of a field of young ratoon canes shall be reckoned from the date when the cutting of the previous crop was completed.

If these dates have not been recorded, the age of the plant or ratoon canes shall be determined by an Inspector of Plant Diseases.

2. No person shall, on and after the publication of this Order in the Jamaica Gazette, plant or grow, or permit or suffer to be planted or grown, Corn (Maize) on any Sugar Estate or Cane Farm in any parish of this Island or within 200 yards from the boundary of any such Sugar Estate or Cane Farm, or plant or grow or permit or suffer to be planted or grown, Corn (Maize) in conjunction with Sugar Cane on any holding of whatsoever kind or description in any parish of this Island.

3. This Order may be cited as "The Mosaic Disease of Sugar Cane Order, 1925."

4. The Interpretation Law, 1900 (Law 9 of 1900) applies for the purpose of the interpretation of this Order in like manner as it applies for the purpose of the interpretation of a Law.

H. BRYAN,
Acting Governor.

King's House, Jamaica.
18th June, 1925.

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REPORT OF THE MARLIE HILL VEGETABLE GROWING COMPETITION.

It is with pleasure that I report on the Marlie Hill Juvenile Vegetable Growing Competition.

This is the best that has been judged in this district since the inauguration of these Competitions.

The plots were larger and better than those of former years in every respect.

Forking, mulching, manuring, and trenching have all improved.

The use of fertilisers is fairly general and very satisfactory returns have been seen as a result.

Some of the competitors keep rabbits and much use is made of the manure from the dung of these animals.

Proper methods of planting out of crops are much in evidence.

The pruning of tomatoes is generally carried out, thus resulting in increased crops.

The budding of garden eggs to susumber is done in nearly every plot.

The budding of citrus is also enthusiastically taken up.

The planting of coffee in the plots is another feature that is being emphasised.

Generally speaking, this Competition has been a thorough success.

Mr. J. L. Thompson, the headmaster of the school, is to be highly commended for the very high standard the Juvenile work has attained in his district.

The list of competitors is attached.

List of Competitors.

Class A.—Boys out of school.
Class B.—Senior boys in school.
Class C.—Junior boys in school.
Class D.—Girls out of school.
Class E.—Girls in school.

CLASS A.

	Marks.
1. Egerton Tulloch	94
2. Mordecai Parker	92
3. Mortimer Blake	91
4. Claudius Francis	74
5. Livingstone Jennings	60

CLASS B.

1. Robert and Claudius Bailey	93
2. Richard Bailey	88
3. Reuben Lee	86
4. Artemus Roofe	82
5. James Loton	81
6. Cecil Rowe	78
7. Wm. Jackson	76
8. Robert Gordon	75
9. Hubert Lewis	73
10. Robert Parker	69
11. Joseph McCalla	61

CLASS C.

1. Neville Bond	85
2. Gerald Jennings	77
3. Hurlin Thompson	76

Class B. (*Continued.*)

4. George Challenor	73
5. Hugh George Smith	72
6. Albert Golding	71
7. Headley Francis	70
8. Charles Hartwell	67
9. Argillae Wallace	66
10. Linton Shaw	63
11. Eustace Scott	62
12. Earl Smith	60
13. Seymour Christian	57
14. Fitz-Gerald Parker	46
15. Raglan Golding	42
16. David Langley	33
17. Randall Douglass	32
18. Kenneth Wright	30

CLASS D.

1. Diana Jackson	84
2. Alsomena Bailey	72
3. Silvera Dawkins	68
4. Francilla Nicholson	63
5. Mavis Anderson	36

CLASS E.

1. Rebertha Leachman	87
2. Nervisse Thomas	80
3. Violet Wright	79
4. Viola Hamilton	74
5. Melvina Bailey	71
6. Victoria Blake	70
7. Dolores Parker	64
8. Susan Brown	59
9. Naomi Laing	54
10. Lucille Parker	51
11. Ellenor King	50
12. Ruby May Parker	48
13. Merdiner Burrell	40
14. Jemima Brown	38
15. Eva Brown	35

(Sgd.) O. P. MARTIN,
Instructor and Judge.

BRANCH NOTES.

All Reports received are acknowledged in this section of the Journal. This month we have only been able to put in print Notes from Branches who have not yet had a publication this year.

Branch Secretaries should ***write on one side of the paper only.***

[Ed.

ST. JAMES: Mt. Horeb.—Meeting October 26. Present: Mr. J. G. Johnson, 1st Vice-President in the chair, Instructor Marr, 16 members and the Secretary. Four new members were enrolled. A resolution was passed requesting that a Distributor of Tickets for the district be appointed. Instructor Marr invited the members to visit the demonstration plot at "Bona Vista" where he would be glad to demonstrate and explain practically. A debate on "Resolved that the Banana is more profitable to cultivate than the Sugar Cane" took place. The members took a lively interest and the voting resulted in a win for "Banana." Other matters were dealt with, and the meeting closed with the singing of the National Anthem.

Mt. Horeb P.O. S. A. SCOTT,
Secretary.

Salt Spring.—Meeting 13th November. Present: Mr. G. W. Anglin, President; Instructor W. D. Marr and 14 members. Business done: (1) Arrangements for demonstration plot. (2) It was decided to renew an application to the Parochial Board

of St. James to have the Salt Spring-Ironshore Road attended to, since a grant of £25 was made over 6 months ago. (3) Resolution for a Post Office was passed. (4) Arrangements for a debate and a musical evening for next meeting were made. The National Anthem terminated the meeting.

Montego Bay P.O. LLEWE. E. DILLION,
Secretary.

ST. MARY: Belfield.—Meeting 8.10.35. Present: M. H. Helps, 1st Vice-President, presiding, Instructor D. A. Jones, 10 members and 3 visitors. As this year marks the centenary of the introduction of bananas into Jamaica, a Committee was appointed to suggest ways and means of celebrating the event. One Authorised Person reported all correct. A very interesting and educative discussion took place on the Cassava—*cultivation and uses. Subscriptions towards Jubilee Memorial Fund* were received. Two new members enrolled. Meeting terminated in the usual way.

Belfield P.O. (MISS) M. L. RENNALLS,
Secretary.

Epsom.—Meeting November 6. *Present: Mr. W. G. Sampson, President.; Instructor,* D. A. Jones, and five other members. Matters regarding T.B. Fund and School Garden were discussed. The Instructor accompanied by the Secretary visited a few holdings. Mr. Jones spoke on banana cultivation. A most interesting meeting terminated with "God Save the King."

Annotto Bay P.O. FRED. A. EDWARDS,
Secretary.

Flint River.—Meeting 14th November. Present: Mr. H. G. Vassal, President; Instructor D. A. Jones, and 19 members. Juveniles held their meeting few minutes before. Instructor's address was on a square of banana and a square of vegetable which pays more. The square of vegetable was supported by everyone present. It was agreed to apply to the Parent Society for a subsidy towards the purchase of a ram. Authorised Persons reported all correct and presented their equipment in good condition. The meeting terminated with the singing of "The King."

Richmond P.O. (MISS) M. R. DAWKINS,
Asst. Secretary.

Hampstead.—Meeting November 16. This informal meeting was held on Mr. Rudolf's lawn. Present: Instructor Coke, several other members and two visitors. (a) Business transacted was: Selection of demonstration plot. This was given by Mr. O. L. Rudolf. Instructor promised to do all he can to foster its progress. Messrs. Rudolf, Nicholson, Burrowes and Beal, to undertake the responsibilities. (b) Citrus, Industry (chiefly lime) members were advised to do grafting and budding of same with "Seville Orange" (c) Panama Disease and immune bananas—chiefly Highgate and S. 19. It was stated that a certain *Fruit Company would not purchase these varieties* (d) Mulching and fowl manure. Members gave their views on same. Instructor told of the result which can be obtained from fowl manure, if used properly. Many minor matters were discussed. Mr. Rudolf promissed to serve as delegate at Highgate Conference. Assistant Secretary tendered his resignation. The following were given deep *consideration to approach the Government re* (a) Agricultural State Loan Bank. (b) Immediate aid to storm damaged cultivations. (c) Adequate amount to be made re the £2,000,000. After an enjoyable time meeting terminated until the 21st proximo.

Hampstead P.O. H. G. A. WHITE-DAVIS,
Reporting Secretary.

Jackson.—Meeting 10th October. Present: The President, the Instructor, five other members and a visitor. Authorised Person N. Taylor made a report. The Instructor in his address referred to the recent storm and informed the House of efforts being made to get further loans from the Government. He encouraged the growing of corn and vegetables, pointing out how they could be marketed. The National Anthem closed the meeting.

Bonny Gate P.O. H. L. HALSTEAD,
Secretary.

Marlborough.—Meeting 29th October. Present: Mr. Z. French in the chair, with nine other members. The financial report showed a Credit Balance of £1 3s. 3d. A grant of 10/- was voted as a donation to the Teacher's house. Report on the Penny Bank was submitted. The Zion Hill Hopewell Pen Road was discussed and it was decided to send a petition to the M.L.C. for St. Mary and the Colonial Secretary asking that this piece of road be taken over by the P.W.D. Mr. Sterling gave an address on coffee cultivation, for which he was thanked. "Conservation of the soil" is to be

discussed at the next meeting. Authorised Person J. Stennett reported on his work. A new member was enrolled. The meeting terminated by the singing of "The King"
Richmond P.O.

S. L. S. Sterling,
Secretary.

Wallingford.—Present at the meeting on November 8 were: Mr. T. S. Phillisps, President, nine other members, six visitors and Instructor Coke. A report from the President in respect of fertilisers was submitted and it was agreed that members should club together to buy in large quantitiies. The debate—Forking versus Trenching resulted in a majority for the latter. Other features were a comic sketch by Mr. L. McKenzie and Miss Gwen Gray's Hawaian Guitar solo. The Instructor urged the necessity of attending to damaged fields.
Guy's Hill P.O.

Adina Phillips,
Secretary.

ST. THOMAS: Aeolus Valley.—Meeting 15.10.35. Present: Mr. T. O. Rankin presiding, 11 members and one visitor. A Secretary was appointed. The delegate to the Half-Yearly Meeting gave his report.

Meeting 5.11.35. Present: 12 members and 16 visitors. It was agreed that a mass meeting be held to go into the matter of the deviation of the main road. The question of a Parochial Dispensary was introduced and deferred. An excursion to the Institute of Jamaica and Hope Gardens was discussed and agreed to. After a brief discussion a resolution was passed requesting that work be given as a relief measure in view of the destruction wrought by the October storm, to be sent to the P.W.D. for St. Thomas and a copy to the Hon. R. Ehrenstein. The National Anthem was sung and the meeting adjourned.
Yallahs P.O.

Robt. E. Stewart,
Secretary.

Cedar Valley.—Meeting 11th October. Present: Miss M. Walter, 1st Vice-President in the chair; and nine other meembers. The Treasurer reported on the finances. Two

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Authorised Persons reported. Minor matters were dealt with and the meeting adjourned with the singing of the National Anthem.

Cedar Valley P.O. H. M. Givens,
Reporting Secretary.

Pear Tree River.—Meeting October 7. Present: Mrs. E. Beckford, 2nd Vice-President; 15 members and many visitors. Financial matters were dealt with. Six delegates were appointed to attend the Parish Association meeting. Invitation was issued to the children of the district to attend next Branch Meeting. The meeting terminated by the singing of "The King."

Port Morant P.O. Jno. E. Lee,
Secretary.

Thornton.—Meeting 8th October. Present: Mr. Alfred A. Williams, President, and ten other members. A new members was enrolled. Messrs. A. A. Williams, S. Price, E. G. Cooper, F. Bennett and the Secretary were appointed delegates to the meeting of the St. Thomas Branches Associated. Subscription in aid of the Anti- T.B. Fund was discussed. Two Authorised Persons were nominated. After a few remarks by the Secretary the meeting closed with the National Anthem.

Sunning Hill P.O. N. A. Patterson,
Secretary.

Wilmington.—Meeting 30th October. Present: Mr. H. M. Thompson, 1st Vice-President presiding, 18 other members and a large number of visitors. The following were appointed delegates to the Half-Yearly Meeting of the Associated Branches. Messrs. A. J. McDowell, A. S. Phillips, H. M. Thompson, D. Robinson, and W. A. Thompson. Resolutions to be dealt with at that meeting were drawn up. Authorised Persons reported all correct. Several members spoke on the damage done to their cultivations by the recent storm, with a view of sending a petition to Government asking for financial aid. Other matters were dealt with and the meeting ended with the singing of the National Anthem.

Morant Bay P.O. W. A. Thompson,
Secretary.

CLARENDON: Brixton Hill.—Inaugural meeting 9.10.35. Present: Rev. C. A. Spencer, President, Instructor, H. L. Virtue and 40 members; visitors, Instructor W. L. Shirley, and U. Theo. McKay Esq., An address was given by Mr. McKay who exhorted the members to keep up the Branch Society. Five members were appointed delegates for the Half-Yearly Meeting of the Associated Branches. The Officers of this Branch were then inducted by Instructor W. L. Shirley. A lecture on the Banana Borer was given by Instructor Virtue; after which the proposed visit to Grove Place was discussed. The National Anthem was sung and the meeting adjourned.

Mocho P.O. D. Moncrieffe,
Asst. Secretary

Mid-Clarendon.—Meeting October 19. Owing to heavy rain there were only a few members present. Mr. R. O. Terrier presided. Correspondence re Mr. McGahan's scheme for irrigation from the Minho was submitted. The hope was expressed that the matter will receive attention from the Government. Report on the demonstration plot showed that receipts did not cover expenditure for the period. Major Moxsy who had lent a further amount of £2 10s. for the working of the plot very kindly made this a further donation. He was tendered a hearty vote of thanks. Resolutions on the following subjects were passed for submission to the Clarendon Branches Associated: (a) Corn Growing Competition. (b) Increase of the duty on imported cornmeal. (c) Irrigation in Lower Clarendon. (d) Percentage of profits from recent Show to help foster Corn Growing Competition and help maintain demonstration plot. (e) Show: Easter Monday 1937. The distribution of the cups at the Half-Yearly Meeting was considered and deferred. Messrs. R. O. Terrier, I. B. Fox, A. L. S. Byles, Rev. E. Evans and the Secretary were appointed delegates to the Half Yearly Meeting of the Clarendon Branches Associated.

May Pen. C. L. A. Rennalls,
Secretary.

Mocho.—Meeting 4th October. Present: Mr. W. M. Bartley in the chair, 17 members and 11 visitors. A committee was formed to arrange for travelling and luncheon in connection with the Branch's visit to Grove Place. Re the Citrus Competition correspondence was read. There was £4 2s. in hand for prizes. Entries registered were few; closing date was extended for 2 weeks. A lengthy discussion arose re the price of coffee due to bad preparation. Invitation from the Pleasant Valley Branch to a picnic and concert in aid of the Jubilee Fund was submitted. Delegates to the meeting of the C.B.A. were nominated. Resolutions were deferred to next meeting. Mr. C. B. Powell was

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elected President. Eight visitors became members. A Committee was named to arrange for the concert to be held on the 29th November. Mr. Dunkley speaking on the subject of Taxation. showed clearly why taxes should be paid, and how the people can pay it. He was greatly thanked. The Secretary was directed to write to the Authorised Persons re their non-attendance at meetings. An interesting meeting was brought to a close with the singing of the National Anthem.

Mocho P.O. (Miss) O. L. Dyer,
Asst. Secretary.

PORTLAND: Claverty Cottage. Meeting November 9th, 1935. Present: J. Barclay, 1st Vice-President in the chair and 10 members. Five delegates were appointed for the conference of the Portland Branches Associated. Three resolutions were dealt with. The Branch agreed to subscribe to the Jubilee Memorial Fund. The Secretary was asked to bring to the notice of the Parent Body that for seven months no Instructor had visited the branch. Many other matters were discussed and the meeting adjourned by the singing of the National Anthem.

Skibo P.O. D. Moore,
Secretary.

Craigmill.—Meeting 5th November. Present: Messrs. H. S. Burke, President, seven other members and one visitor, who became a member. Messrs. H. S. Burke, J. T. Lowe, A. A. Palmer, S. B. Baugh and Rev. T. Lawrence were elected to represent the Branch at the Conference of the Portland Branches Associated. The Authorised Persons had nothing to report. Their equipment was in good condition. A Special Meeting was fixed for the 19th November to discuss the suggested Amendments of the Rules of the P. B. Association. The marking of the Roll and the National Anthem terminated the meeting.

Buff Bay P.O. (Rev.) T. Lawrence,
Secretary.

Drapers.—Meeting October 4. Present Mr. G. R. Graham, Instructor, Mr. A. R. Beswick, President, 6 other members and two visitors. Delegates were appointed to attend the Half-Yearly Meeting of the Portland Branches Associated. 5/6 was voted towards the Jubilee Memorial Fund. The Instructor delivered an address on vegetable growing and packing. Minor matters were dealt with. The meeting closed with the National Anthem.

Port Antonio P.O. (Miss) M. P. Duncan,
Secretary.

MANCHESTER: Devon Potato Growers' Association.—Meeting 1.11.35. Present Instructor J. A. Graham, ten members and two visitors. A resolution requesting the Parent Society to make effort to obtain seed potatoes at a lower cost without sacrificing quality was passed. The meeting felt that representation to the proper authorities should be made with a view to filling the place rendered vacant by the death of Mr E. A. Bayley, J.P., as it is of importance that a J.P. should reside in the district. The Instructor gave an address in which he emphasized the following: (a) his wish to get the members interested in the co-operative growing of vegetables—Tomato, Garden Egg and Sweet Pepper—for foreign market, (b) theimportance of having the soil well manured and prepared for potato growing (c) the necessity for careful selection of seeds, (d) the poor variety of corn grown in the district. Several members expressed their desire to

take up vegetable growing. The Instructor was thanked, and the singing of the National Anthem brought the meeting to a close.

Mile Gully P.O.

H. E. GAYLE,
Secretary.

Mizpah.—Meeting 11th November. Present: Rev. John Kneale, President and 18 other members. It was decided to invite certain gentlemen to the Annual Meeting in April next. The Secretary was instructed to forward the 10/- collected for the Jubilee Memorial Fund. Re Citrus Fund, the Secretary stated that it stood at 1/7. Report from Committee appointed to recast resolutions submitted that resolutions were recast and sent on the following: (a) Asphalting the streets of Walderston. (b) Garbage bins for Walderston. (c) Allison-Cobbler road. Correspondence in reply to these requests was placed before the meeting.. Messrs. U. C. Wolfe, M. H. Williams and J. McKenzie were appointed delegates to the meeting of the M.B.A. Instructor Graham gave his usual brilliant and instructive address dealing with the destruction of ants, afforestation and vegetables for exports. He suggested the use of a blackboard at Walderston to give notice of meetings and interesting items on the agenda. The Instructor was thanked. The singing of "The King" brought the meeting to a close.

Williamsfield P.O.

U. C. WOLFE,
Secretary.

New Green.—Meeting 7th November. Present: Mr. Darby the Instructor; Mr. Wright Agricultural Headman; several members and friends. The First Vice-President presided. Miss R. Vassel was appointed to act as Secretary and Mrs. F. Morrison as Treasurer. The Instructor informed the house of the presence of the headman in the district and urged the members to give every assistance to him in his work. He addressed the house at length on the pruning and care ofcoffee emphasising that we should endeavour to get the coffee bearing on the new wood as the quality was far superior to coffee bearing on old wood. The chairman introduced a resolution expressing condolence at the death of Mr. Caleb Williams late member of the branch· The resolution was supported and adopted by the house. Touching the death of Mr. E. A. Grant late Secretary and Treasurer resolution was introduced by the 1st Vice President and was unanimously adopted. A copy to be sent to his relatives. After the roll call was taken and minor matters dealt with the meeting terminated in the usuall manner.

Mandeville P.O.

(MISS) R. VASSEL,
Acting Secretary.

TRELAWNY: Spring Garden, Rock Spring.—Meeting 14.11.35. Present: President and 12 other members. Re the proposed trip to Grove Place it was thought best to postpone it for early in the coming year. Re Post Office for the District, the President informed the House that the Supervisor had called on him to consult about the matter, but the Supervisor would not be convinced of the necessity. He suggested that the matter be dropped for the present. The President now gave a very useful address on the Agricultural Society for which he was very heartily thanked. Authorised Person reported on his work. Minor matters were dealt with after which the meeting terminated with the singing of the National Anthem.

Albert Town P.O.

(MISS) L. EDWARDS,
Secretar .

Ulster Spring.—Meeting 11th November. Present: Mr. J. McKenzie presiding, ten other members and visitors. There was a very interesting discussion on the Coffee Competition. Various matters were brought up by members and discussed. Authorised Person reported all correct. Minor matters were dealt with. The National Anthem was sung and the meeting adjourned.

Ulster Spring P.O.

(MISS) I. C. WILLIAMS,
Secretary.

Wilson's Run.—Meeting 8th October. Attendance small, owing to weather conditions. Present: Mr. W. Motto, President: eight other members and Instructor Thompson. There was a discussion on the continual selling of lumber off the Crown Lands. The Secretary was instructed to write to the proper authorities about this, through the Parent Society. Members subscribed 3/- towards the upkeep of the Demonstration plot. The actions of some Authorised Persons were deplored; as they are not alive to their duties. The meeting ended with the singing of the National Anthem.

Troy P.O.

G. E. BAILEY,
Secretary.

Wait-a-Bit.—Meeting October 9. Present: Mr. M. N. Thompson, Instructor; and 12 members. The 2nd Vice-President presided until the arrival of the 1st Vice-President, who then took charge. Jubilee Memorial Fund was again discussed. The Instructor gave a very helpful talk on the handling of fields in their present condition, pointing out fields that were very nicely cleaned up and others that were sources of

danger to the banana industry. Coffee Growing Competition was discussed and 7 members entered. Authorised Persons reported all correct. The Managing Committee was named to draft a resolution asking for special supervision of bread vendors in the district. Singing of "The King" terminated the evening's proceedings.

Wait-a-Bit P.O. I. L. ROGERS, Secretary.

Waldensia.—Meeting 4.11.35. Mr. D. A. Beckford, 1st Vice-President, presided. The following matters were dealt with (a) Demonstration plot. (b) Seed potatoes and new cupboard for Branch. (c) reading from Journal about disease of coffee and discussion of the reading matter. Roll Call showed 15 members present. Fees. Two new members were enrolled.

Sherwood Content P.O. C. C. LEE, Secretary.

ST. ELIZABETH: Kilmarnock.—Meeting 8th October. Present: Mr. L. E. Scott, President, nine members and two visitors who became members. Matters relating to the boar was discussed and it was agreed that the boar must be purchased. Apology for absence from Instructor Wray was submitted. Authorised Person reported all correct. *The Secretary was directed to request that the billy goat be sent to* Kilmarnock for service after leaving Middle Quarters. The Secretary was also asked to write to the Parochial Board requesting them to construct the tank speedily in view of the fact that an improved water supply was very necessary.

New Market P.O. J. E. MONTEITH, Secretary.

Merrywood.—Meeting 30th October. Mr. Edward March, 1st Vice-President, presided. The proposed tour of members to Grove Place was again discussed and the members urged the fixing of an early date. Members expressed dissatisfaction at the non-attendance of Instructor Wray in the district. The petition re Merrywood-Ginger Hill Road to be presented to the Parochial Board was again discussed and the great necessity for this road stressed. The National Anthem brought meeting to close.

Ipswich P.O. I. LEO. ROYE, *Secretary.*

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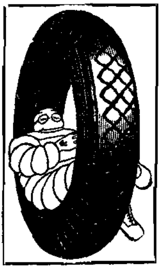

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Upper Pedro Plains.—Meeting 1.11.35. Present: Instructor Lynch, Rev. T. E. McKay, President; four members and some visitors. A discussion arose on tomato growing. A Competition was arranged. The Instructor gave an address on tomato growing and demonstrated the making of Burgundy Mixture and how to spray to prevent blight. A vote of thanks was accorded him. Questions asked on the control of the Cassava Caterpillar were dealt with by the Instructor. An interesting discussion on a biological question concerning caterpillars of certain types being able to reproduce smaller caterpillars took place. Minor matters were discussed and the singing of the National Anthem brought the meeting to a close.

Pedro Plains P.O. I. S. MILLARD,
Secretary.

Pepper.—Meeting 18th September. Present: Mr. O. B. Atkinson, President; the Instructor, and 6 other members. Arising out of the minutes was the matter of a ram, which the Instructor obtained for the Society. A bag of cane plants was got from the Hope Farm for distribution. The Instructor in his address showed the value of cane, and how it can be made a profitable industry. He also gave helpful hints as to the selection and care of pigs, so as to get good returns. He was thanked. There was a short discussion on the working of the district road. Meeting was then brought to a close.

Pepper P.O. (MRS.) M. A. ATKINSON,
Secretary.

ST. CATHERINE: Bowerswood.—Meeting November 14. Present: All Officers, Instructor C. S. Byles and 47 members. The matter of a Demonstration Farm was discussed and a Committee was appointed to consider this and report back to Branch. The Instructor lectured on drought conditions; conservation of moisture in the soil; cleaning of fields in dry weather; coffee culture, and marketing. His lecture was very illustrative and helpful. Mr. J. M. Reynolds supplemented the Instructor's remarks with his experience as an agriculturist. A Managing Committee was organized and resolution for the Half-Yearly Meeting of the Associated Branches prepared. Eight new members were enrolled. Resolution was passed asking that some "emblem or insignia" be made by Jamaica Agricultural Society to be worn by its members. The meeting adjourned to 12.12.35 with the singing of the National Anthem.

Bog Walk P.O. PETER E. J. DAVIS,
Secretary.

Bellas' Gate.—Meeting 14th September. Present: Instructor O. P. Martin, F. N. Barnett, President; many other members and Juveniles. The Secretary was instructed to write the Parent Society about the Corn Competition. The rules regarding the care of the tools of the Branch were read, amended and confirmed. The Instructor in his address talked about the storm and the resuscitation of bananas and the using of pulpers for the proper curing of coffee. A vote of thanks was accorded him. The Instructor answered questions asked about citrus and gave instructions as to planting. Letter was read stating that the improvement of the curves on the main road from Old Harbour to Bellas' Gate would be considered. Minor matters were dealt with and the meeting terminated with the singing of the National Anthem.

Bellas' Gate P.O. A. A. MCCURDY,
Secretary.

Glengoffe.—Meeting 5th November. Present: Alex. Carey, Esq., J.P., President; Supervisor A. P. Hanson, 18 members and a goodly number of visitors. The Branch is trying to get a coffee pulper to improve the curing methods of the coffee of its members. The Supervisor gave an instructive and helpful address on replanting of fields after the storm. All present were benefited. After minor matters, the National Anthem brought the meeting to a close.

Glengoffe P.O. AUSTIN C. PYNE,
Secretary.

St. John's Lower.—Meeting 5th November. Twenty-three members were present. Arrangements were made for the Half-Yearly meeting of the St. Catherine Branches Associated and delegates to represent the Branch were appointed as follows:—Mrs. A. D. Smith, Messrs. C. Green, I. Bennett, F. Maxwell and F. McBean. A resolution asking for the establishment of a Parochial Dispensary at Guanaboa Vale was passed. It was noted with satisfaction that effect has been given to the resolution passed at the last branch meeting regarding the yaws menace in the area. It was also noted that the Land Settlement Scheme was progressing favourably. The three Authorised Persons present gave their reports. Minor matters were dealt with and the meeting terminated with the National Anthem.

Guanaboa Vale P.O. T. L. GORDON,
Secretary.

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ST. ANN.—Claremont.—Meeting 3rd October. Present: Revd. C. S. Cousins, 2nd Vice-President pzresiding; Instructor C. V. Atkinson, 11 other members and 7 visitors Two new members were enrolled. A resolution regarding inspection of citrus fruit was passed to be discussed at the meeting of the Associated Branches. The President, the Hon. Secretary Rev. C. S. Cousins, Miss L. Archambeau and Mr. S. H. Lawrence were azpointed delegates to the Half-Yearly Meeting of the Associated Branches. It was decided to arrange for a Flower Garden Competition under the auspicies of the Branch. A Committee was duly named for the purpose. The Instructor reported the appointment of Mr. W. Hill as an Authorized Person. Other matters were dealt with and the singing of the National Anthem terminated the proceedings.

Claremont P.O. P. M. McCalla,
Hon. Secretary.

ST. ANDREW.—Rock Hall.—Meeting 4th October. Present: Mr. W. H. Bolton, 1st Vice-President, presiding, Instructor Chas. D. B. Henderson. 12 members and 4 visitors who became members. It was reported that the Inspector of Schools visited the district in connection with the request made for the opening of a school in the district, and that His Excellency Sir Edward Denham visited Red Hills and Rock Hall and promised to do his best to establish the school. The new Instructor was given a cordial welcome. Instructor gave an address on co-operation, coffee-gathering and curing and on the interest taken in the Agricultural Society. He thanked the Branch for the welcome given him. Mr. Theo. Heslop and the Secretary also spoke. One Authorised Person reported all correct, The National Anthem brought an enjoyable and interesting meeting to a close.

Red Hills P.O. (Mrs.) Bertha Heslope,
Secretary.

WESTMORELAND: Kentucky.—Meeting October 18. Present: Instructor, Mr. F. W. Kelly and 10 other persons. Mr. E. Gayle was appointed Secretary *vice* Miss I. A. Reid who resigned. Three Authorised Persons were nominated. Three new members were enrolled. A resolotion pointing out the necessity of having a vaccination station at Kentucky passed. The Instructor instructed members on planting of bananas, manuring of the soil and destruetion of borers. The meeting closed with the singing of the National Anthem.

A. M. Scott,
Asst. Secretary.

Other Reports Received.

Branch and Secretary.	Date of Meeting.	Attendance.	Business.
Portland.			
Bybrook (Miss J. V. Watson)	14.11.35	24	T. B. Fund. Meeting of P.B.A. Fertilizers. Peas Industry.
Craignmill (Rev. T. Lawrenee)	1.10.35	9	Road. Local Cassava and Potato Competition.
Clarendon.			
Brandon Hill (E. A. Graham)	16.9.35	29	Resolutions and delegates for meeting of C.B.A. Authorised Persons. Address by Instructor Shirley.
Pleasant Valley (Mrs. A. A. Flyter)	15.10.35		Jubilee Memorial Fund. Meeting of C.B.A. and delegates. Authorised Persons.
Red Hills (A. E. Mills)	17.10.35	over 75	Panama Disease. Address to Major Moxsy.
St. Andrew.			
Content (G. G. Planter)	25.9.35		Visit to Planters District. Citrus Association. Sub-branch at Stony Ground. Reports re Working Committee Women's Auxiliary. Juveniles. And Authorised Persons.
Westphalia (S. Parke)	31.8.35	15	Vegetables. Report from Authorised Person.
St. Mary.			
Epsom (F. A. Edwards)	2.10.35	12	Proposed Concert. Addresses by Mrs. Purcell, Miss James and Instructor Jones.
Flint River (Miss M. R. Dawkins)	10.10.35	15	Juvenile Branch. Authorised Persons. Debate.

Other Reports Received, *contd.*

Branch and Secretary.	Date of Meeting.	Attendances.	Business.
Highgate (E.W. Parkinson)	19.10.35		Vegetable cultivation. Competition re incre membership.
Wood Park (C. L. A. Stuart)	9.10.35	16	Report on outing to "Nova Scotia." Taxat Loans to Banana Planters. Corn Industry.
Wallingford (Jas. S. Laing)	11.10.35	10	Bees. Fertilizers. Water Supply. Restoratior damaged fields. Authorised Persons. Add by Instructor Coke.
Jackson (H. S. Halstead)	9.9.35	12	Authorised Persons. Method of punishing thie Visits from Instructor. Yaws.
Lucky Hill (F. Wright-Geohagen)	15.10.35	14	Jubliee Fund. Authorised Persons. Cottage] pital and medical aid. Demonstration] Address by Instructor Coke.
Turnberry (E. L. Welds)	22.10.35	..	Report on ram. Storm damage. Post (Yaws.
Marlborough (S. L. S. Sterling)	23.9.35	12	Juvenile Branch. Penny Bank. Teacher's Co Address by Instructor Jones.
Westmoreland.			
Haddo (Mrs. A. M. Roberts)	4.11.35	over 20	Vaccination centre. Appointment of delegate meeting of W.B. Assoc. Authorised Persons
Kentucky (F. A. Nosworthy)	20.9.35	17	Addresses by Mr. W.O. Grant, Rev. S.I. Cumn and Instructor Kelly.
Porters Mtn. (D. F. Bowen)	12.10.35 and 9.11.35	25 and 16	Grindstone. Address by Instructor. Corn Road. Debate.
Sheffield (S. M. Hall)	16.9.35		Cornwall Exhibition. Addresses by Mr. Tou and Instructor Kelly.
Hanover.			
Jericho (Miss J. McKenzie)	12.11.35	25	Resolutions. Paper on "Growth of Agricult Jamaica" by Mr. Virtue.
St. Catherine.			
Princessfield (P. G. C. Graham)	28.10.35		Authorised Persons. Address by Instructor R
St. Thomas.			
Seaforth (C. L. Stewart)	15.10.35	14	Juvenile Branch. Paper—"Treatise on Agricultur by Mr. Ronaldson. Address by Instruct McLaren.
Pear Tree River (V. R. McLean)	16.9.35	12	Jubilee Fund. Coffee Industry. Excursion Kingston.
St. Elizabeth.			
Kilmarnock (S. Richards)	10.9.35	19	Road. Boar. Address by President.
Merrywood (I. L. Roye)	25.9.35	11	Authorised Persons. Visit to Grove Place. Citru Address by Instructor Wray.
Mocho, New-market (R.S. Tomlinson)	13.11.35	21	Citrus. Maternity nurse. Address by Instruct Wray.
Upper Pedro Plains (I. S. Millard)	4.10.35	16	Authorized Persons. Tomato Growing Competitio
Springfield (J. A. Woodstock)	1.11.35	17	Delegate to St. Elizabeth B. A. Agricultur Development and Government Loan. Authorised Persons. Address by Instructor Wray.
Trelawny.			
Spring Garden Rock Spring Mrs. L. Edwards)	10.10.35		Address by Major Moxsy on Juvenile Branc Rotation of crops. Demonstration Plot. Po Office.
Stewart Town (W.W.Benjamin)	29.10.35		Agricultural Fair. Vegetable cultivation. A dress by Instructor Robotham,
Ulster Spring (Miss I. C. Williams.)	14.10.35		Jubilee Fund. Coffee Competition. Authoris Persons. Address by Instructor Thompson.

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